Regional Water Quality Control Board LAHONTAN REGION (6)



SECTION 303 (d) LIST PROPOSALS



Region 6: Alkali Lake, upper Salinity, TDS, Chlorides

Water Body	Alkali Lake, upper
water Body	riman zane, apper

Stressor/Media/Beneficial Use Salinity, TDS, Chlorides/Water/Drinking

Data quality assessment. Extent to which data quality requirements met. N/A

Linkage between measurement endpoint

and benefical use or standard

N/A

Utility of measure for judging if standards or uses are not attained N/A

Water Body-specific Information

N/A

N/A

Data used to assess water quality

Spatial representation N/A

Temporal representation N/A N/A Data type

Use of standard method N/A

Potential Source(s) of Pollutant Input from geothermal springs and concentration by evaporation over

geologic timescale.

Alternative Enforceable Program

RWQCB Recommendation Delist because exceedence of standards is due to natural causes. TMDL is

not applicable.

After reviewing the available data and information and the RWQCB **SWRCB Staff Recommendation**

> documentation for this recommendation, SWRCB staff concludes that the water body should be removed from the section 303(d) list because the source of impacts to water quality standards is entirely natural.

Implementation of a TMDL is not appropriate.

Region 6: Big Meadow Creek (Tributary to Lake Tahoe) **Pathogens**

Big Meadow Creek (Tributary to Lake Tahoe) Water Body

Stressor/Media/Beneficial Use Pathogens/Water/Human health

Data quality assessment. Extent to which data quality requirements met. OA procedures used.

Linkage between measurement endpoint and benefical use or standard

Pathogens are linked to Human Health.

Utility of measure for judging if standards or uses are not attained Measurement can be directly compared to WQO.

Water Body-specific Information Data collected from 1999-2000.

Data used to assess water quality Violations of standard (20/100ml log mean during any 30-day period or not more than 10% of samples to exceed 40/100 ml in any 30-day period)

were common (50-70% of samples) during grazing season. They were less

common (0-9% of samples) during non-grazing season.

Spatial representation Targeted in water body.

Temporal representation Data collected in 1999-2000. WQO is log mean not to exceed 20/100 ml

during any 30-day period, or not more than 10% of samples to exceed

40/100 ml in any 30-day period.

Data type WQO and fecal coliform counts are numeric information.

Use of standard method

Potential Source(s) of Pollutant Waste from livestock grazing believed to be primary source.

Alternative Enforceable Program USFS Grazing management plan.

RWOCB Recommendation List.

SWRCB Staff Recommendation After reviewing the available data and information and the RWQCB

documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or

causes the problem.

This conclusion is based on the staff findings that:

1. The data is considered to be of adequate quality.

- 2. The data exhibited sufficient spatial and temporal coverage.
- 3. Beneficial uses have been established for and apply to the water body.
- 4. Water quality standard used is applicable.
- 5. Data are numerical.
- 6. Standard methods were used.
- 7. Other water body- or site-specific information including the age of the data were considered.

Region 6: Big Springs Arsenic

Water Body	Big Springs
Stressor/Media/Beneficial Use	Arsenic/Water/Drinking
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and benefical use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	Source is of volcanic origin, with no sources of industrial or agricultural discharges.
Alternative Enforceable Program	N/A
RWQCB Recommendation	De-list due to natural causes. Beneficial use is drinking water supply for City of Los Angeles. Arsenic is removed from this water supply before delivery for use.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be removed from the section 303(d) list because applicable water quality standards are exceeded but the source of the pollutant is entirely natural (i.e., volcanic).

Region 6: Blackwood Creek (Tributary to Lake Tahoe) Nitrogen

Water Body Blackwood Creek (Tributary to Lake Tahoe)

Stressor/Media/Beneficial Use Nitrogen/Water/Aquatic Life

Data quality assessment. Extent to which data quality requirements met.

QA procedures used.

Linkage between measurement endpoint and benefical use or standard

Nitrogen is linked to Aquatic Life.

Utility of measure for judging if standards or uses are not attained

Measurement can be compared to WQO directly.

Water Body-specific Information Samples collected from creek mouth between 1989-1996 by Lake Tahoe

Interagency Monitoring Program.

Data used to assess water quality Violations of WQO for total Nitrogen (0.19 mg/L annual mean) in 6 of 8

water years.

Spatial representation Samples collected from creek mouth.

Temporal representation Samples collected between 1989-1996.

Data type WQO and water column chemistry data are numeric values.

Use of standard method

Potential Source(s) of Pollutant Sources are atmospheric deposition, erosion, stormwater.

Alternative Enforceable Program

RWQCB Recommendation List.

SWRCB Staff Recommendation

After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

This conclusion is based on the staff findings that:

- 1. The data is considered to be of adequate quality.
- 2. The data exhibited sufficient spatial and temporal coverage.
- 3. Beneficial uses have been established for and apply to the water body.
- 4. Water quality standard used is applicable.
- 5. Data are numerical.
- 6. Standard methods were used.
- 7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered.

Region 6: Blackwood Creek (Tributary to Lake Tahoe) Phosphorus

Water Body Blackwood Creek (Tributary to Lake Tahoe)

Stressor/Media/Beneficial Use Phosphorus/Water/Aquatic Life

Data quality assessment. Extent to which data quality requirements met.

QA procedures used.

Linkage between measurement endpoint and benefical use or standard

Phosphorous is linked to Aquatic Life.

Utility of measure for judging if standards or uses are not attained

Measurement can be compared to WQO directly.

Water Body-specific Information Samples collected from creek mouth between 1989-1996 by Lake Tahoe

Interagency Monitoring Program.

Data used to assess water qualityViolations of WQO for total Phosphorus in 15 of 17 water years from

1980-1996.

Spatial representation Samples collected from creek mouth.

Temporal representation Samples collected between 1989-1996.

Data type WQO and water column chemistry data are numeric values.

Use of standard method

Potential Source(s) of Pollutant Erosion from severely disturbed areas (logging, gravel mining),

atmospheric, deposition, stormwater, forest fire.

Alternative Enforceable Program

RWQCB Recommendation List.

SWRCB Staff Recommendation

After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

This conclusion is based on the staff findings that:

- 1. The data is considered to be of adequate quality.
- 2. The data exhibited sufficient spatial and temporal coverage.
- 3. Beneficial uses have been established for and apply to the water body.
- 4. Water quality standard used is applicable.
- 5. Data are numerical.
- 6. Standard methods were used.
- 7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered.

Region 6: Blackwood Creek (Tributary to Lake Tahoe) Iron (plant nutrient)

Water Body Blackwood Creek (Tributary to Lake Tahoe)

Stressor/Media/Beneficial Use Iron (plant nutrient)/Water/Aquatic Life

Data quality assessment. Extent to which data quality requirements met.

QA procedures used.

Linkage between measurement endpoint and benefical use or standard

Iron is linked to Aquatic Life.

Utility of measure for judging if standards or uses are not attained

Measurement can be compared to WQO directly.

Water Body-specific Information Samples collected from creek mouth between 1989-1996 by Lake Tahoe

Interagency Monitoring Program.

Data used to assess water quality Violations of WQO for total iron in 8 of 8 water years, from 1989-1996.

Spatial representation Samples collected from creek mouth.

Temporal representation Samples collected between 1989-1996.

Data type WQO and water column chemistry data are numeric values.

Use of standard method Yes

Potential Source(s) of Pollutant Erosion from severely disturbed areas (logging, gravel mining).

Alternative Enforceable Program

RWQCB Recommendation List.

SWRCB Staff Recommendation

After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

This conclusion is based on the staff findings that:

- 1. The data is considered to be of adequate quality.
- 2. The data exhibited sufficient spatial and temporal coverage.
- 3. Beneficial uses have been established for and apply to the water body.
- 4. Water quality standard used is applicable.
- 5. Data are numerical.
- 6. Standard methods were used.
- 7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered.

Region 6: Bridgeport Reservoir, Crowley Lake, Lake Tahoe Nitrogen, Phosphorus

Bridgeport Reservoir, Crowley Lake, Lake Tahoe Water Body Stressor/Media/Beneficial Use Nitrogen, Phosphorus/Water/Aquatic life Data quality assessment. Extent to N/A which data quality requirements met. Linkage between measurement endpoint N/A and benefical use or standard Utility of measure for judging if N/A standards or uses are not attained Water Body-specific Information N/A Data used to assess water quality N/A **Spatial representation** N/A **Temporal representation** N/A N/A Data type Use of standard method N/A Potential Source(s) of Pollutant Stormwater runoff, erosion, atmospheric deposition. **Alternative Enforceable Program** N/A **RWQCB Recommendation** Clarify previous listings for nutrients. Replace nutrient listings with separate listings for nitrogen and phosphorus. **SWRCB Staff Recommendation** Clarify previous listings for nutrients. Replace nutrient listings with separate listings for nitrogen and phosphorus.

Region 6: Buckeye Creek Pathogens

Water Body Buckeye Creek

Stressor/Media/Beneficial Use Pathogens/Water/Human health

Data quality assessment. Extent to which data quality requirements met.

QA procedures used.

Linkage between measurement endpoint and benefical use or standard

Pathogens are linked to Human Health.

Utility of measure for judging if standards or uses are not attained

Measurement can be directly compared to WQO.

Water Body-specific Information Data collected from April 2000-June 2001.

Data used to assess water quality At least 5 of 10 (50%), and at least 6 of 14 samples (43%) exceeded the

40/100 ml WQO.

Spatial representation Targeted in water body.

Temporal representationData collected from April 2000 - June 2001. **Data type**Fecal coliform counts are numeric information.

Use of standard method

Potential Source(s) of Pollutant High bacterial counts coincide with months when livestock are present.

Natural sources of bacteria may also occur.

Alternative Enforceable Program

RWQCB Recommendation List.

SWRCB Staff Recommendation

After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

This conclusion is based on the staff findings that:

- 1. The data is considered to be of adequate quality.
- 2. The data exhibited sufficient spatial and temporal coverage.
- 3. Beneficial uses have been established for and apply to the water body.
- 4. Water quality standard used is applicable.
- 5. Data are numerical.
- 6. Standard methods were used.
- 7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered.

Region 6: Carson River, East Fork (was East Fork Carson River) Nutrients

Water Body Carson River, East Fork (was East Fork Carson River)

Stressor/Media/Beneficial Use Nutrients/Water/Aquatic life

Data quality assessment. Extent to which data quality requirements met.

QA procedures used for pH analysis.

Linkage between measurement endpoint and benefical use or standard

Nutrients can be linked to Aquatic Life.

Utility of measure for judging if standards or uses are not attained

Increases in pH can results from algal blooms, which result from high nutrient levels

pH data collected in Nevada, 12-13 miles downstream of state boundary.

Data used to assess water quality

Water Body-specific Information

24 laboratory measurements of pH taken between 1997-2001 showed no violations of the WQO for pH. 5 of 26 field measurements were slightly outside the WQO for pH. These deviations are not enough to affect beneficial uses.

Spatial representation

pH data collected in Nevada, 12-13 miles downstream of state boundary.

Temporal representation

24 laboratory measurements of pH taken between 1997-2001.

Data type

pH values are numeric.

Use of standard method

Potential Source(s) of Pollutant N/A

Alternative Enforceable Program N/A

RWQCB Recommendation

Delist based on faulty data used in original listing, and current data that shows that no impairment of beneficial uses.

SWRCB Staff Recommendation

After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be removed from the section 303(d) list because of faulty data used in original listing, and because current data that shows that standards are not exceeded.

This conclusion is based on the staff findings that:

- 1. The data is considered to be of inadequate quality.
- 2. The data exhibited insufficient spatial and temporal coverage.

Region 6: Carson River, West Fork (headwaters to Woodfords) (was West + Nitrogen

Carson River, West Fork (headwaters to Woodfords) (was West Fork Water Body

Carson River, Headwaters to Woodfords)

Stressor/Media/Beneficial Use Nitrogen/Water/Aquatic Life

Data quality assessment. Extent to which data quality requirements met. QA procedures used.

Linkage between measurement endpoint

and benefical use or standard

Nitrogen is linked to Aquatic Life.

Utility of measure for judging if standards or uses are not attained Measurement can be directly compared to WQO.

Water Body-specific Information Data collected between 1981-2000.

Data used to assess water quality Data exceeded the objectives for total Kjeldahl nitrogen (0.13 mg/L mean

of monthly means), nitrate (0.02 mg/L mean of monthly means), and total

nitrogen (0.15 mg/L mean of monthly means).

Spatial representation Targeted in water body.

Temporal representation Mean of monthly means.

Data type WQO and water column chemistry data are numeric values.

Use of standard method

Potential Source(s) of Pollutant Sources may be septic systems, erosion, stormwater, historic livestock

grazing, and natural nitrogen fixation.

Alternative Enforceable Program None.

RWQCB Recommendation List.

SWRCB Staff Recommendation

After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

This conclusion is based on the staff findings that:

- 1. The data is considered to be of adequate quality.
- 2. The data exhibited sufficient spatial and temporal coverage.
- 3. Beneficial uses have been established for the water body.
- 4. Water quality standard used is applicable.
- 5. Data are numerical, not numerical, both numerical and not numerical.
- 6. Standard methods were used.
- 7. Other water body- or site-specific information including the age of the data were considered.

Most of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.

Region 6: Carson River, West Fork (headwaters to Woodfords) (was West + Phosphorus

Water Body Carson River, West Fork (headwaters to Woodfords) (was West Fork

Carson River, Headwaters to Woodfords)

Stressor/Media/Beneficial Use Phosphorus/Water/Aquatic Life

Data quality assessment. Extent to which data quality requirements met.

QA procedures used.

Linkage between measurement endpoint

and benefical use or standard

Phosphorus is linked to Aquatic Life.

Utility of measure for judging if standards or uses are not attained

Measurement can be directly compared to WQO

Water Body-specific Information Data collected between 1997-2001

Data used to assess water quality The WQO is 0.02 mg/L (annual mean of monthly means). Data collected

between 1997-2001 showed the following values: 1997=0.09 mg/L;

1998=0.03 mg/L; 1999=0.02 mg/L; 2000=0.03 mg/L

Spatial representation Targeted in water body.

Temporal representation Annual mean of monthly means

Data type WQO and water column chemistry data are numeric values

Use of standard method

Potential Source(s) of Pollutant Sources are erosion, stormwater, atmospheric, deposition.

Alternative Enforceable Program

RWQCB Recommendation List.

SWRCB Staff Recommendation

After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

This conclusion is based on the staff findings that:

- 1. The data is considered to be of adequate quality.
- 2. The data exhibited sufficient spatial and temporal coverage.
- 3. Beneficial uses have been established for the water body.
- 4. Water quality standard used is applicable.
- 5. Data are numerical, not numerical, both numerical and not numerical.
- 6. Standard methods were used.
- 7. Other water body- or site-specific information including the age of the data were considered.

Most of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.

Region 6: Carson River, West Fork (headwaters to Woodfords) (was West + Percent sodium

Carson River, West Fork (headwaters to Woodfords) (was West Fork Water Body

Carson River, Headwaters to Woodfords)

Stressor/Media/Beneficial Use Percent sodium/Water/Crop protection

Data quality assessment. Extent to which data quality requirements met. QA procedures used.

Linkage between measurement endpoint

and benefical use or standard

Percent sodium is linked to agricultural beneficial uses.

Utility of measure for judging if standards or uses are not attained Measurement can be directly compared to WQO.

Water Body-specific Information Data collected in 2000.

Data used to assess water quality The WQO is 20% expressed as a mean of monthly means. Data collected

in 2000 showed a mean of monthly means of 21.7%.

Targeted in water body. Locations unknown. Spatial representation

Temporal representation Mean of monthly means.

Data type WQO and water column chemistry data are numeric values.

Use of standard method Yes.

Potential Source(s) of Pollutant Road salt, septic systems, natural.

Alternative Enforceable Program

RWQCB Recommendation List.

SWRCB Staff Recommendation

After reviewing the available data and information and the RWOCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

This conclusion is based on the staff findings that:

- 1. The data is considered to be of adequate quality.
- 2. The data exhibited sufficient spatial and temporal coverage.
- 3. Beneficial uses have been established for the water body.
- 4. Water quality standard used is applicable.
- 5. Data are numerical, not numerical, both numerical and not numerical.
- 6. Standard methods were used.
- 7. Other water body- or site-specific information including the age of the data were considered.

Region 6: Carson River, West Fork (Woodfords to Paynesville) (was Wes + Nitrogen

Water Body Carson River, West Fork (Woodfords to Paynesville) (was West Fork

Carson River, Woodfords to Paynesville)

Stressor/Media/Beneficial Use Nitrogen/Water/Aquatic Life

Data quality assessment. Extent to which data quality requirements met.

QA procedures used.

Linkage between measurement endpoint

and benefical use or standard

Nitrogen is linked to Aquatic Life.

Utility of measure for judging if standards or uses are not attained

Measurement can be directly compared to WQO.

Water Body-specific Information Data collected between 1981-2000.

Data used to assess water quality

Data exceeded the objectives for total nitrogen (0.25 mg/L mean of

monthly means), and nitrate (0.03 mg/L mean of monthly means).

Spatial representation Targeted in water body.

Temporal representation Mean of monthly means.

Data type WQO and water column chemistry data are numeric values.

Use of standard method

Potential Source(s) of Pollutant Pasture runoff, stormwater, erosion, atmospheric deposition.

Alternative Enforceable Program None.

RWQCB Recommendation List.

SWRCB Staff Recommendation After reviewing the available data and information and the RWQCB

documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or

causes the problem.

This conclusion is based on the staff findings that:

1. The data is considered to be of adequate quality.

2. The data exhibited sufficient spatial and temporal coverage.

3. Beneficial uses have been established for the water body.

4. Water quality standard used is applicable.

5. Data are numerical, not numerical, both numerical and not numerical.

6. Standard methods were used.

7. Other water body- or site-specific information including the age of the

data were considered.

Most of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.

Region 6: Carson River, West Fork (Woodfords to Paynesville, Paynesvi + Percent sodium

Water Body Carson River, West Fork (Woodfords to Paynesville, Paynesville to State

Line) (was West Fork Carson River, Woodfords to Paynesville)

Stressor/Media/Beneficial Use Percent sodium/Water/Crop Protection

Data quality assessment. Extent to which data quality requirements met.

QA procedures used.

Linkage between measurement endpoint

and benefical use or standard

Sodium is linked to Agriculture and Crop Protection.

Utility of measure for judging if standards or uses are not attained

Measurement can be directly compared to WQO.

Water Body-specific Information Data collected in 2000.

Data used to assess water quality

The WQO is 20% expressed as a mean of monthly means. Data collected

in 2000 showed a mean of monthly means of 23%.

Spatial representation Targeted in water body.

Temporal representation Mean of monthly means.

Data type WQO and water column chemistry data are numeric values.

Use of standard method

Potential Source(s) of Pollutant Road salt, septic systems, natural.

Alternative Enforceable Program

RWQCB Recommendation List.

SWRCB Staff Recommendation

After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

This conclusion is based on the staff findings that:

- 1. The data is considered to be of adequate quality.
- 2. The data exhibited sufficient spatial and temporal coverage.
- 3. Beneficial uses have been established for the water body.
- 4. Water quality standard used is applicable.
- 5. Data are numerical.
- 6. Standard methods were used.
- 7. Other water body- or site-specific information including the age of the data were considered.

Most of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.

Region 6: Carson River, West Fork (Woodfords to Paynesville, Paynesvi + **Pathogens**

Carson River, West Fork (Woodfords to Paynesville, Paynesville to State Water Body

Line) (was West Fork Carson River, Woodfords to State Line)

Stressor/Media/Beneficial Use Pathogens/Water/Human health

Data quality assessment. Extent to which data quality requirements met. QA procedures used.

Linkage between measurement endpoint

and benefical use or standard

Pathogens are linked to Human Health.

Utility of measure for judging if standards or uses are not attained Measurement can be directly compared to WQO.

Water Body-specific Information Data collected from 2000-2001.

Data used to assess water quality Data indicated violation of the fecal coliform WQO in four of ten months

sampled. Numbers of total and fecal coliform bacteria were higher during

the summer grazing season.

Spatial representation Targeted in water body.

Temporal representation Ten months sampled.

Data type Fecal coliform counts are numeric information.

Use of standard method

Potential Source(s) of Pollutant Partially natural sources (i.e. wildlife). Primary source is believed to be

livestock waste.

Alternative Enforceable Program

RWQCB Recommendation List.

SWRCB Staff Recommendation

After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

This conclusion is based on the staff findings that:

- 1. The data is considered to be of adequate quality.
- 2. The data exhibited sufficient spatial and temporal coverage.
- 3. Beneficial uses have been established for the water body.
- 4. Water quality standard used is applicable.
- 5. Data are numerical, not numerical, both numerical and not numerical.
- 6. Standard methods were used.
- 7. Other water body- or site-specific information including the age of the data were considered.

Region 6: Crowley Lake Arsenic

Water Body	Crowley Lake
Stressor/Media/Beneficial Use	Arsenic/Water/Drinking
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and benefical use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	Source is of volcanic origin, with no sources of industrial or agricultural discharges.
Alternative Enforceable Program	N/A
RWQCB Recommendation	Delist due to natural causes. Beneficial use is drinking water supply fo City of Los Angeles Arsenic is removed from this water supply before delivery for use.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that to

Beneficial use is drinking water supply for City of Los Angeles. Arsenic is removed from this water supply before delivery for use.

water body should be removed from the section 303(d) list because applicable water quality standards are exceeded but the source of the

pollutant is entirely natural (volcanic).

Region 6: Donner Lake Priority Organics (including PCBs, chlordane)

Water Body Donner Lake

Stressor/Media/Beneficial Use Priority Organics (including PCBs, chlordane)/Water/Human health

Data quality assessment. Extent to which data quality requirements met.

TSMP uses OAPP

Linkage between measurement endpoint and benefical use or standard

Priority organics are linked to Human Health.

Utility of measure for judging if standards or uses are not attained

Measurement can be directly compared to MTRL.

Water Body-specific Information Fish collected in Lake. Most recent TSMP data from 1991, 1993.

Data used to assess water quality

Two composite fish tissue samples (1991, 1993) showed PCB

concentrations of 165 ppb and 102 ppb. The MTRL for PCBs is 5.3 ppb. MTRL for chlordane is 8.0 ppb. One fish tissue sample from 1991 showed

a chlordane concentration of 26.2 ppb.

Spatial representation Two composite fish tissue samples of 6-7 fish each.

Temporal representation Data collected at various times since 1978. Most recently in 1991 and

993.

Data type Numerical fish tissue data.

Use of standard method

Potential Source(s) of Pollutant Unknown.

Alternative Enforceable Program

RWQCB Recommendation Delist based on limited data used to list. No OEHHA advisory in effect.

No recent data available.

SWRCB Staff Recommendation After review

After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should not be removed from the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes

to or causes the problem.

This conclusion is based on the staff findings that:

1. The data is considered to be of adequate quality.

- 2. The data exhibited sufficient spatial and temporal coverage.
- 3. Beneficial uses have been established for and apply to the water body.
- 4. Water quality standard used is applicable.
- +. Water quarity standard used is applicable
- 5. Data are numerical.
- 6. Standard methods were used.

Region 6: Donner Lake Priority Organics (including PCBs, chlordane)

TSMP data is sufficient (two composite samples of 13 fish), and exceedances of WQO are large enough to maintain listing. PCB concentrations were 165 and 102 ppb. (MTRL is 5.3 ppb). Chlordane result was 26.2 ppb. MTLR is 8.0 ppb. RWQCB may request TSMP to schedule additional monitoring before next listing cycle.

Region 6: Eagle Lake Nitrogen, Phosphorus (was Low Dissolved Oxygen)

Water Body	Eagle Lake
Stressor/Media/Beneficial Use	Nitrogen, Phosphorus (was Low Dissolved Oxygen)
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and benefical use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	N/A
RWQCB Recommendation	Change listing from low dissolved oxygen to separate listings for nitrogen and phosphorus.
SWRCB Staff Recommendation	Clarify by changing listing from low dissolved oxygen to separate listings for nitrogen and phosphorus.

Region 6: East Walker River Metals

Water Body	East Walker River
Stressor/Media/Beneficial Use	Metals/Tissue/Human health
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and benefical use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	N/A
RWQCB Recommendation	Delist because original listing was based on inappropriate use of EDLs a WQOs. EDLs are Elevated Data Levels that are the 85th and 95th percentiles of all data collected, and are not WQOs.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the

documentation for this recommendation, SWRCB staff concludes that the water body should be removed from the section 303(d) list because of faulty criteria used in original listing. Elevated Data Levels (EDLs) were used as a basis for concluding that water quality standards were not being met. This is inappropriate. EDLs are the 85th and 95th percentiles of all

data collected, and are not appropriate guidelines.

The staff confidence that standards were exceeded is extremely low.

Region 6: East Walker River above Bridgeport Reservoir Pathogens

Water Body East Walker River above Bridgeport Reservoir

Stressor/Media/Beneficial Use Pathogens/Water/Human health

Data quality assessment. Extent to which data quality requirements met.

QA procedures used.

Linkage between measurement endpoint and benefical use or standard

Pathogens are linked to Human Health.

Utility of measure for judging if standards or uses are not attained

Measurement can be directly compared to WQO.

Water Body-specific Information Samples collected from 2000-2001.

Data used to assess water quality At least 8 of 17 samples (47%) exceeded 40 colonies/100 ml.. The WQO

requires that no more than 10% of samples exceed 40 colonies/100 ml.

Spatial representation Targeted in water body.

Temporal representation Samples collected 2000-2001.

Data type Fecal coliform counts are numeric information.

Use of standard method

Potential Source(s) of Pollutant Fecal coliform counts were highest during grazing season.

Alternative Enforceable Program

RWQCB Recommendation List.

SWRCB Staff Recommendation

After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

This conclusion is based on the staff findings that:

- 1. The data is considered to be of adequate quality.
- 2. The data exhibited sufficient spatial and temporal coverage.
- 3. Beneficial uses have been established for and apply to the water body.
- 4. Water quality standard used is applicable.
- 5. Data are numerical.
- 6. Standard methods were used.
- 7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered.

Region 6: East Walker River below Bridgeport Reservoir Nitrogen

Water Body East Walker River below Bridgeport Reservoir

Stressor/Media/Beneficial Use Nitrogen/Water/Aquatic Life

Data quality assessment. Extent to which data quality requirements met.

QA procedures used.

Linkage between measurement endpoint and benefical use or standard

Nitrogen is linked to Aquatic Life.

Utility of measure for judging if standards or uses are not attained

Measurement can be directly compared to WQO.

Water Body-specific Information Samples collected from April 2000 - February 2001 by USGS.

Data used to assess water quality

The mean of 9 samples was 0.64 mg/L. This exceeds the WQO (0.50 mg/L annual mean). Three of 9 samples (33%) exceeded the 90th

percentile value of 0.80 mg/L. The WQO requires that no more than 10%

of samples exceed the 90th percentile value.

Spatial representation Targeted in water body.

Temporal representation Samples collected April 2000 - February 2001.

Data type WQO and water column chemistry data are numeric values.

Use of standard method

Potential Source(s) of Pollutant Reservoir releases, stormwater, erosion.

Alternative Enforceable Program

RWQCB Recommendation List.

SWRCB Staff Recommendation

After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

This conclusion is based on the staff findings that:

- 1. The data is considered to be of adequate quality.
- 2. The data exhibited sufficient spatial and temporal coverage.
- 3. Beneficial uses have been established for and apply to the water body.
- 4. Water quality standard used is applicable.
- 5. Data are numerical.
- 6. Standard methods were used.
- 7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered.

Region 6: East Walker River below Bridgeport Reservoir Phosphorus

Water Body East Walker River below Bridgeport Reservoir

Stressor/Media/Beneficial Use Phosphorus/Water/Aquatic Life

Data quality assessment. Extent to which data quality requirements met.

QA procedures used.

Linkage between measurement endpoint and benefical use or standard

Phosphorus is linked to Aquatic Life.

Utility of measure for judging if standards or uses are not attained

Measurement can be directly compared to WQO.

Water Body-specific Information Samples collected by USGS between April 2000-February 2001.

Data used to assess water quality

The mean of 11 samples was 0.083 mg/L. This exceeds the WQO of 0.06

mg/L (annual mean). Four of nine samples exceeded the 90th percentile

value of 0.10 mg/L.

Spatial representation Targeted in water body.

Temporal representation Annual mean.

Data type WQO and water column chemistry data are numeric values.

List.

Use of standard method

Potential Source(s) of Pollutant Release from Bridgeport Reservoir.

Alternative Enforceable Program

SWRCB Staff Recommendation

RWQCB Recommendation

After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

This conclusion is based on the staff findings that:

- 1. The data is considered to be of adequate quality.
- 2. The data exhibited sufficient spatial and temporal coverage.
- 3. Beneficial uses have been established for and apply to the water body.
- 4. Water quality standard used is applicable.
- 5. Data are numerical.
- 6. Standard methods were used.
- 7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered.

Region 6: General Creek (Tributary to Lake Tahoe) Phosphorus

Water Body General Creek (Tributary to Lake Tahoe)

Stressor/Media/Beneficial Use Phosphorus/Water/Aquatic Life

Data quality assessment. Extent to which data quality requirements met.

QA procedures used.

Linkage between measurement endpoint and benefical use or standard

Phosphorus is linked to Aquatic Life.

Utility of measure for judging if standards or uses are not attained

Measurement can be directly compared to WQO.

Water Body-specific Information Data collected from 1981-96.

Data used to assess water quality

Annual means for 12 of 16 water years exceed the WQO (0.015 mg/L)

annual mean)

Spatial representation Targeted in water body.

Temporal representation Annual means for 12 of 16 water years.

Data type WQO and water column chemistry data are numeric values.

Use of standard method

Potential Source(s) of Pollutant Major sources from erosion, atmospheric deposition, stormwater.

Alternative Enforceable Program

RWQCB Recommendation List.

SWRCB Staff Recommendation

After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

This conclusion is based on the staff findings that:

- 1. The data is considered to be of adequate quality.
- 2. The data exhibited sufficient spatial and temporal coverage.
- 3. Beneficial uses have been established for and apply to the water body.
- 4. Water quality standard used is applicable.
- 5. Data are numerical.
- 6. Standard methods were used.
- 7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered.

Region 6: General Creek (Tributary to Lake Tahoe) Iron (plant nutrient)

Water Body General Creek (Tributary to Lake Tahoe)

Stressor/Media/Beneficial Use Iron (plant nutrient)/Water/Aquatic Life

Data quality assessment. Extent to which data quality requirements met.

QA procedures used.

Linkage between measurement endpoint and benefical use or standard

Iron is linked to Aquatic Life.

Utility of measure for judging if standards or uses are not attained

Measurement can be directly compared to WQO.

Water Body-specific Information Data collected from 1989-96.

Data used to assess water quality

Annual means for 8 of 8 water years exceed the WQO (0.03 mg/L annual

mean)

Spatial representation Targeted in water body.

Temporal representation Annual means for 8 of 8 water years

Data type WQO and water column chemistry data are numeric values.

Use of standard method

Potential Source(s) of PollutantMajor sources from erosion, stormwater.

Alternative Enforceable Program

RWQCB Recommendation List.

SWRCB Staff Recommendation

After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

This conclusion is based on the staff findings that:

- 1. The data is considered to be of adequate quality.
- 2. The data exhibited sufficient spatial and temporal coverage.
- 3. Beneficial uses have been established for and apply to the water body.
- 4. Water quality standard used is applicable.
- 5. Data are numerical.
- 6. Standard methods were used.
- 7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered.

Region 6: Grant Lake Arsenic

W.A. D. I	Grant Lake

Water Body Grant Lake

Stressor/Media/Beneficial Use Arsenic/Water, Tissue/Drinking, Human health

Data quality assessment. Extent to which data quality requirements met.

N/A

Linkage between measurement endpoint

and benefical use or standard

N/A

Utility of measure for judging if standards or uses are not attained

N/A

Water Body-specific Information

Beneficial uses are drinking water supply for City of Los Angeles and fish consumption. Water is blended in order to meet current drinking water standard at the tap. 1991 TSMP data showed no exceedences of fish

consumption criteria.

Data used to assess water quality N/A

Spatial representation N/A

Temporal representation N/A

Data type N/A

Use of standard method N/A

Potential Source(s) of Pollutant Source is of volcanic origin, with no sources of industrial or agricultural

discharges.

Alternative Enforceable Program

RWQCB Recommendation Delist due to natural causes. Beneficial uses are drinking water supply for

City of Los Angeles and fish consumption. Water is blended in order to meet current drinking water standard at the tap. 1991 TSMP data showed

no exceedences of fish consumption criteria.

SWRCB Staff Recommendation After reviewing the available data and information and the RWQCB

documentation for this recommendation, SWRCB staff concludes that the water body should be removed from the section 303(d) list because applicable water quality standards are exceeded but the source of the

pollutant is entirely natural.

Region 6: Haiwee Reservoir Copper

Water Body Haiwee Reservoir

Stressor/Media/Beneficial Use Copper/water/MUN, REC-1, REC-2, COLD, WILD, RARE, SPWN

Data quality assessment. Extent to which data quality requirements met.

Linkage between measurement endpoint and benefical use or standard

Utility of measure for judging if standards or uses are not attained

Water Body-specific Information

Data used to assess water quality

Spatial representation

Temporal representation

Data type

Use of standard method

Potential Source(s) of Pollutant City of Los Angeles applies copper-based algaecide in order to satisfy

drinking water requirements (for color, odor).

Alternative Enforceable Program

RWQCB Recommendation Existing 1998 listing.

SWRCB Staff RecommendationThe comment below will be added to the list and fact sheet indicating, where relevant, that the question of whether Haiwee Reservoir, a water-

quality-limited segment, is a water of the United States was raised, but that

listing is not a determination of that question.

^{*} A determination of whether or not this water body is a "water of the United States" will be made by the Regional Water Quality Control Board.

Region 6: Heavenly Valley Creek, source to USFS boundary (was Heavenl + Sediment

Heavenly Valley Creek, source to USFS boundary (was Heavenly Valley Water Body

Creek between USFS boundary and confluence with Trout Creek)

Stressor/Media/Beneficial Use Sediment/Water/Aquatic Life

Data quality assessment. Extent to which data quality requirements met.

Linkage between measurement endpoint

and benefical use or standard

Sedimentation is linked to Aquatic Life.

Utility of measure for judging if standards or uses are not attained There is a numerical suspended sediment objective (60 mg/L as an annual 90th percentile) that applies to all tributaries of Lake Tahoe.

Water Body-specific Information A TMDL has been developed for the water body-pollutant combination.

The TMDL has been approved by USEPA.

Data used to assess water quality

Spatial representation

Temporal representation

Data type

Use of standard method

Potential Source(s) of Pollutant Source is erosion from upstream developments, local streambank erosion,

stormwater from Pioneer Trail, and other nonpoint sources.

Alternative Enforceable Program A TMDL has been completed

RWQCB Recommendation Place on TMDL Completed List.

SWRCB Staff Recommendation After reviewing the available data and information and the RWQCB

documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the TMDLs Completed List because a TMDL has been developed for the water body-pollutant combination. The

TMDL has been approved by USEPA.

Region 6: Heavenly Valley Creek, source to USFS boundary (was Heavenl + Phosphorus

Water Body Heavenly Valley Creek, source to USFS boundary (was Heavenly Valley

Creek, within USFS boundary)

Stressor/Media/Beneficial Use Phosphorus/Water/Aquatic Life

Data quality assessment. Extent to which data quality requirements met.

QA procedures used.

Linkage between measurement endpoint

and benefical use or standard

Phosphorus is linked to Aquatic Life.

Utility of measure for judging if standards or uses are not attained

Measurement can be directly compared to WQO.

Water Body-specific Information Data collected between 1997-2001 by USFS.

Data used to assess water qualityAnnual means of samples collected from 6 sites all exceeded standard,

0.015 mg/L annual mean.

Spatial representation Data collected from 6 sites.

Temporal representation Annual means of samples.

Data type WQO and water column chemistry data are numeric values.

Use of standard method

Potential Source(s) of Pollutant Sources may be atmospheric, deposition, erosion from disturbed areas, and

natura

Alternative Enforceable Program Coordination with TMDL for Trout Creek.

RWQCB Recommendation List.

SWRCB Staff Recommendation After reviewing the available data and information and the RWQCB

documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or

causes the problem.

This conclusion is based on the staff findings that:

1. The data is considered to be of adequate quality.

- 2. The data exhibited sufficient spatial and temporal coverage.
- 3. Beneficial uses have been established for the water body.
- 4. Water quality standard used is applicable.
- 5. Data are numerical.
- 6. Standard methods were used.
- 7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered.

Region 6: Heavenly Valley Creek, source to USFS boundary and USFS bou + Chloride

Heavenly Valley Creek, source to USFS boundary and USFS boundary to Water Body

Trout Creek (was Heavenly Valley Creek)

Stressor/Media/Beneficial Use Chloride/Water/Aquatic Life

Data quality assessment. Extent to which data quality requirements met. QA procedures used.

Linkage between measurement endpoint

and benefical use or standard

Chloride is linked to Aquatic Life.

Utility of measure for judging if standards or uses are not attained Measurement can be compared to WQO directly.

Water Body-specific Information Data collected between 1997-2001 by USFS.

Data used to assess water quality Annual means of samples collected from 6 sites all exceeded standard, 0.15

mg/L annual mean'.

Samples collected from 6 sites. Spatial representation

Annual means of samples. **Temporal representation**

Data type WQO and water column chemistry data are numeric values.

Use of standard method

Potential Source(s) of Pollutant Sources may be road salt, atmospheric deposition, and some natural

Alternative Enforceable Program

RWQCB Recommendation List.

SWRCB Staff Recommendation

After reviewing the available data and information and the RWOCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

This conclusion is based on the staff findings that:

- 1. The data is considered to be of adequate quality.
- 2. The data exhibited sufficient spatial and temporal coverage.
- 3. Beneficial uses have been established for the water body.
- 4. Water quality standard used is applicable.
- 5. Data are numerical.
- 6. Standard methods were used.
- 7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered.

Region 6: Heavenly Valley Creek, USFS boundary to Trout Creek) (was H + Sediment

Water Body Heavenly Valley Creek, USFS boundary to Trout Creek) (was Heavenly

Valley Creek)

Stressor/Media/Beneficial Use Sediment/Water/Aquatic Life

Data quality assessment. Extent to which data quality requirements met.

Linkage between measurement endpoint and benefical use or standard

Utility of measure for judging if standards or uses are not attained Water Body-specific Information

Data used to assess water quality

Spatial representation

Temporal representation

Data type

Use of standard method

Potential Source(s) of Pollutant

Alternative Enforceable Program

RWQCB Recommendation Continue to list the lower two portions of Heavenly Valley Creek for

sediment.

SWRCB Staff Recommendation Due to completion of a TMDL for Heavenly Valley Creek--source to

USFS boundary, the entire Creek should no longer be on the 303(d) list. Instead, the lower portion, USFS boundary to Trout Creek, should be

specifically identified as remaining on the list.

Region 6: Hot Creek Metals

SWRCB Staff Recommendation

Water Body	Hot Creek
Stressor/Media/Beneficial Use	Metals/Water/Drinking
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and benefical use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	Metals (arsenic and others) come from natural geothermal and volcanic sources.
Alternative Enforceable Program	N/A
RWQCB Recommendation	Delist due to natural sources of metals.

After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the

Region 6: Indian Creek Pathogens

Water Body Indian Creek

Stressor/Media/Beneficial Use Pathogens/Water/Human health

Data quality assessment. Extent to which data quality requirements met.

QA procedures used.

Linkage between measurement endpoint and benefical use or standard

Pathogens are linked to Human Health.

Utility of measure for judging if standards or uses are not attained

Measurement can be directly compared to WQO.

Water Body-specific Information Samples collected between June 2000- May 2001.

Data used to assess water quality 13 of 30 samples (43%) exceeded the WQO. The WQO requires that no

more than 10% of samples exceed 40 colonies/100 ml.

Spatial representation Targeted in water body.

Temporal representation June 2000- May 2001.

Data type WQO and water column chemistry data are numeric values.

Use of standard method

Potential Source(s) of Pollutant Fecal coliform counts were highest during grazing season.

Alternative Enforceable Program

RWQCB Recommendation List.

SWRCB Staff Recommendation

After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

This conclusion is based on the staff findings that:

- 1. The data is considered to be of adequate quality.
- 2. The data exhibited sufficient spatial and temporal coverage.
- 3. Beneficial uses have been established for the water body.
- 4. Water quality standard used is applicable.
- 5. Data are numerical.
- 6. Standard methods were used.
- 7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered.

Region 6: Lower Alkali Lake Salinity, TDS, Chlorides

Water Body	Lower Alkali Lake
------------	-------------------

Stressor/Media/Beneficial Use Salinity, TDS, Chlorides/Water/Drinking

Data quality assessment. Extent to which data quality requirements met.

N/A

Linkage between measurement endpoint

and benefical use or standard

N/A

Utility of measure for judging if standards or uses are not attained

N/A

Water Body-specific Information

N/A

Data used to assess water quality

N/A

Spatial representation N/A

Temporal representation N/A

Data type N/A

Use of standard method N/A

Potential Source(s) of Pollutant Input from geothermal springs and concentration by evaporation over

geologic timescale.

Alternative Enforceable Program

RWQCB Recommendation Delist because exceedence of standards is due to natural causes. TMDL is

not applicable.

SWRCB Staff Recommendation After reviewing the available data and information and the RWQCB

documentation for this recommendation, SWRCB staff concludes that the water body should be removed from the section 303(d) list because the

sources of salinity, TDS and chlorides are natural.

Region 6: Middle Alkali Lake Salinity, TDS, Chlorides

Water Body	Middle Alkali Lake
water bouy	

Stressor/Media/Beneficial Use Salinity, TDS, Chlorides/Water/Drinking

Data quality assessment. Extent to which data quality requirements met.

N/A

Linkage between measurement endpoint

and benefical use or standard

N/A

Utility of measure for judging if standards or uses are not attained

N/A

Water Body-specific Information

N/A

Data used to assess water quality

N/A

Spatial representation N/A

Temporal representation N/A

Data type N/A

Use of standard method N/A

Potential Source(s) of Pollutant Input from geothermal springs and concentration by evaporation over

geologic timescale.

Alternative Enforceable Program

RWQCB Recommendation Delist because exceedence of standards is due to natural causes. TMDL is

not applicable.

SWRCB Staff Recommendation After reviewing the available data and information and the RWQCB

documentation for this recommendation, SWRCB staff concludes that the water body should be removed from the section 303(d) list because the

sources of salinity, TDS and Chlorides are natural.

Region 6: Mojave River Priority Organics

Water Body Mojave River

Stressor/Media/Beneficial Use Priority Organics/Water/Human health

Data quality assessment. Extent to which data quality requirements met.

QA procedures used.

Linkage between measurement endpoint

and benefical use or standard

N/A

Utility of measure for judging if standards or uses are not attained

N/A

Water Body-specific Information

Also a 1991 USGS study showed that priority pollutants are no longer present in concentrations of concern in the area affected by the

groundwater plume.

Data used to assess water quality N/A

Spatial representation N/A
Temporal representation N/A

Data type N/A

Use of standard method N/A

Potential Source(s) of Pollutant "Barstow Slug" of subsurface pollutants.

Alternative Enforceable Program

RWQCB Recommendation Delist because pollutants were present in groundwater portion of this

intermittent stream, and listings are limited to surface waters. Also a 1991 USGS study showed that priority pollutants are no longer present in concentrations of concern in the area affected by the groundwater plume.

SWRCB Staff Recommendation

After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be removed from the section 303(d) list because while pollutants were present in groundwater portion of this intermittent stream,

listings are limited to surface waters.

The staff confidence that surface water quality standards were exceeded is

low. A TMDL is not applicable.

Region 6: Monitor Creek Sulfate

Water Body Monitor Creek

Stressor/Media/Beneficial Use Sulfate/Water/Drinking

Data quality assessment. Extent to which data quality requirements met.

Unknown.

Linkage between measurement endpoint and benefical use or standard

Sulfate is linked to Drinking Water Beneficial Use.

Utility of measure for judging if standards or uses are not attained

Measurement can be directly compared to WQO.

Water Body-specific Information Data collected from 1990-1991.

Data used to assess water quality Data indicated an annual mean that exceeded 100 mg/L with maximum

values of 700-800 mg/L. The WQO for sulfate is 4.0 mg/L as an annual

mean

Spatial representation Targeted in water body.

Temporal representation Applicable Basin Plan objectives (East Fork of Carson River watershed)

are in the form of an annual mean and a 90th percentile number.

Data type WQO and water column chemistry data are numeric values.

Use of standard method Standard methods of analysis were used.

Potential Source(s) of Pollutant Acid mine drainage.

Alternative Enforceable Program No alternative program is currently available.

RWQCB Recommendation List.

SWRCB Staff Recommendation After reviewing the available data and information and the RWQCB

documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or

causes the problem.

This conclusion is based on the staff findings that:

1. The data is considered to be of adequate quality.

2. The data exhibited sufficient spatial and temporal coverage.

3. Beneficial uses have been established for the water body.

4. Water quality standard used is applicable.

5. Data are numerical.

6. Standard methods were used.

7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered.

Region 6: Monitor Creek TDS

Monitor Creek Water Body

Stressor/Media/Beneficial Use TDS/Water/Drinking

Data quality assessment. Extent to which data quality requirements met. Unknown.

Linkage between measurement endpoint

and benefical use or standard

TDS is linked to Drinking Water Beneficial Use.

Utility of measure for judging if standards or uses are not attained Measurement can be directly compared to WQO.

Water Body-specific Information Data collected from 1990-1991.

Data used to assess water quality Data indicated an annual mean that exceeded 500mg/L at 4 of 7 sampling

locations, with maximum values of 1000 mg/L at locations below mine

tailings. The WQO for TDS is 80 mg/L as an annual mean.

Targeted in water body. **Spatial representation**

Temporal representation Annual mean.

Data type WQO and water column chemistry data are numeric values.

Use of standard method

Potential Source(s) of Pollutant Acid mine drainage.

Alternative Enforceable Program

RWQCB Recommendation List.

SWRCB Staff Recommendation

After reviewing the available data and information and the RWOCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

This conclusion is based on the staff findings that:

- 1. The data is considered to be of adequate quality.
- 2. The data exhibited sufficient spatial and temporal coverage.
- 3. Beneficial uses have been established for the water body.
- 4. Water quality standard used is applicable.
- 5. Data are numerical.
- 6. Standard methods were used.
- 7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered.

Region 6: Monitor Creek Iron, silver, aluminum, manganese (was "metals")

Water Body	Monitor Creek
Stressor/Media/Beneficial Use	Iron, silver, aluminum, manganese/Water/Aquatic life
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and benefical use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	Acid mine drainage. Specific metals identified during a Section 205(j)-funded study of the chemistry and biology of Monitor Creek.
Alternative Enforceable Program	N/A
RWQCB Recommendation	Clarify metals listing. Replace metals listing with listings for 4 specific metals- iron, silver, aluminum, manganese.
SWRCB Staff Recommendation	Clarify metals listing. Replace metals listing with listings for 4 specific metals - iron, silver, aluminum, manganese.

Region 6: Mono Lake Salinity, TDS, Chlorides

Water Dady	Mono Lake

Water Body

Stressor/Media/Beneficial Use Salinity, TDS, Chlorides/Water/Aquatic life, Wildlife

Data quality assessment. Extent to which data quality requirements met. N/A

Linkage between measurement endpoint

and benefical use or standard

N/A

Utility of measure for judging if standards or uses are not attained N/A

Water Body-specific Information

Data used to assess water quality

N/A N/A

Spatial representation N/A

Temporal representation N/A

N/A Data type

Use of standard method N/A

Potential Source(s) of Pollutant Water diversion. Natural causes.

Alternative Enforceable Program SWRCB Water Rights Decision 1631.

RWOCB Recommendation Delist because high concentrations of salts and trace elements are from

natural sources. SWRCB Decision 1631 establishes conditions to control

lake level and salt concentrations.

SWRCB Staff Recommendation After reviewing the available data and information and the RWQCB

> documentation for this recommendation, SWRCB staff concludes that the water body should be removed from the section 303(d) list and placed on the Enforceable Program List because while applicable water quality standards are exceeded, another program will address the problem. SWRCB Decision 1631 establishes conditions to control lake level and salt concentrations. Salt concentrations are not solely due to natural causes. Fifty years of water diversions caused a 45 foot drop in lake level, which caused increases in salt concentrations above those caused by natural

sources. SWRCB Decision 1631 established a restored lake level of 6391

feet to meet water quality standards.

Region 6: Owens Lake Salinity, TDS, Chlorides

Water Body	Owens Lake
Stressor/Media/Beneficial Use	Salinity, TDS, Chlorides/Water/Drinking, Aquatic life
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and benefical use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	Owens Lake has accumulated salts and trace elements from volcanic and geothermal sources and from concentration caused by water diversions in a closed basin over geologic time.
Alternative Enforceable Program	Windblown dust control agreement by LADWP and Great Basin Unified Air Pollution Control District.
RWQCB Recommendation	Delist.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be removed from the section 303(d) list because impairment is due to natural sources of salts and trace elements. Except for a few inches of water used to wet the dry lakebed to reduce particulate air pollution, no water remains. The Lake is not a drinking water supply.

Region 6: Owens River Arsenic

Water Body	Owens River
Stressor/Media/Beneficial Use	Arsenic/Water/Drinking
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and benefical use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	Source is of volcanic origin, with no sources of industrial or agricultura discharges.
Alternative Enforceable Program	N/A
RWQCB Recommendation	Delist.

SWRCB Staff Recommendation After reviewing the available data and information and the RWQCB

documentation for this recommendation, SWRCB staff concludes that the water body should be removed from the section 303(d) list because impairment is from natural causes. The beneficial use is drinking water supply for City of Los Angeles Arsenic is removed from this water supply

before delivery for use.

Region 6: Robinson Creek **Pathogens**

Robinson Creek Water Body

Stressor/Media/Beneficial Use Pathogens/Water/Human health

Data quality assessment. Extent to which data quality requirements met. QA procedures used.

Linkage between measurement endpoint and benefical use or standard

Pathogens are linked to Human Health.

Utility of measure for judging if standards or uses are not attained Measurement can be directly compared to WQO.

Water Body-specific Information Data collected between April 2000- June 2001.

Data used to assess water quality At least 5 of 6 fecal coliform samples (83%) exceeded the WQO (no more

than 10% of samples collected in any 30-day period shall exceed 40/100

Targeted in water body. **Spatial representation**

Temporal representation No more than 10% of samples collected in any 30-day period shall exceed

Data type Fecal coliform counts are numeric information.

Use of standard method

Potential Source(s) of Pollutant High coliform counts coincide with months when livestock are present.

Alternative Enforceable Program

List. **RWQCB Recommendation**

SWRCB Staff Recommendation After reviewing the available data and information and the RWOCB

> documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the Monitoring List because the data are inadequate to determine if applicable water quality standards are exceeded.

> An inadequate amount number of water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is currently low. Nonetheless, there is some evidence of impacts to beneficial uses. Therefore, this water body should be monitored more

extensively before the next listing cycle.

Region 6: Searles Lake Salinity, TDS, Chlorides

Searles Lake

Water Body

Stressor/Media/Beneficial Use Salinity, TDS, Chlorides/Water/WILD, REC-1, REC-2, SAL

Data quality assessment. Extent to which data quality requirements met.

N/A

Linkage between measurement endpoint

and benefical use or standard

N/A

Utility of measure for judging if standards or uses are not attained N/A

Water Body-specific Information

N/A

Data used to assess water quality

Department of Fish and Game (DFG) believes that wastewater ponds created at Searles Lake are an on-going threat to wildlife. DFG has documented hundreds of bird deaths, primarily from salt toxicosis and salt encrustation (documentation enclosed). Historically, the dry lakebed offered little or no open water to migrating waterfowl. Hence birds did not stop and mortality was minimal. That is in contrast to current conditions, where effluent from salt-extraction operations have created a lethal

attraction for migrating birds.

Spatial representation N/A

Temporal representation N/A

Data type N/A

Use of standard method N/A

Potential Source(s) of Pollutant Some natural sources, possible discharges of brine from IMCC. Waste

Discharge Requirements Cleanup and Abatement Orders.

Alternative Enforceable Program The RWQCB has issued Cleanup and Abatement Orders to address this

> pollutant problem in Searles Lake (Cleanup and Abatement Order Nos. 6-00-64 and 6-00-64A1). These orders require the company to (1) describe methods implemented to significantly reduce the number of waterfowl deaths, (2) eliminate ongoing sources of contaminant concentrations to the Lake, (3) implement any additional methods that are necessary to correct the problems, (4) eliminate all visible petroleum hydrocarbons from surface waters of the Lake, (5) remove or remediate to non-detect levels, all visible petroleum hydrocarbon contaminated surface soils and sediments, and (6) to periodically report on the effectiveness of

remediation efforts.

RWOCB Recommendation Delist because impairment resulting from salinity/TDS/chlorides is from

natural sources, and the lake is supporting aquatic life uses to the extent

possible under extreme environmental conditions.

SWRCB Staff Recommendation After reviewing the available data and information and the RWQCB

documentation for this recommendation, SWRCB staff concludes that Searles Lake should be removed from the section 303(d) list for salinity, TDS, and chlorides and placed on the Enforceable Program List because

Region 6: Searles Lake Salinity, TDS, Chlorides

applicable water quality standards are exceeded but other programs will better address the problem.*

This conclusion is based on the staff findings that:

- 1. The data is considered to be of adequate quality.
- 2. The data exhibited sufficient spatial and temporal coverage.
- 3. Beneficial uses have been established for the water body.
- 4. Standard methods were used.
- 5. Other water body- or site-specific information including the effects of natural sources and age of the data were considered.

^{*} A determination of whether or not this water body is a "water of the United States" will be made by the Regional Water Quality Control Board.

Region 6: Searles Lake Petroleum Hydrocarbons

Searles Lake Water Body

Stressor/Media/Beneficial Use Petroleum Hydrocarbons/Water/WILD, REC-1, REC-2, SAL

Data quality assessment. Extent to which data quality requirements met. OA procedures used.

Linkage between measurement endpoint and benefical use or standard

Petroleum Hydrocarbons are linked to Beneficial Uses.

Utility of measure for judging if standards or uses are not attained Measurement can be compared to WQO directly.

Water Body-specific Information

13 site inspections by Regional Board staff between February and June, 2000.

Data used to assess water quality

Numerous (at least 13) observations of visible oil on Lake waters, banks, channels and ponds. Over 150 dead waterfowl collected by CDFG. Waterfowl encrusted with brine and oil. Oil found in internal organs of waterfowl. Visible oil observed. Sample collected showed 156,000 ppm TPH.

DFG believes that wastewater ponds created at Searles Lake are an ongoing threat to wildlife. DFG has documented hundreds of bird deaths, primarily from salt toxicosis and salt encrustation (documentation enclosed). Historically, the dry lakebed offered little or no open water to migrating waterfowl. Hence birds did not stop and mortality was minimal. That is in contrast to current conditions, where effluent from salt-extraction operations have created a lethal attraction for migrating birds.

Spatial representation

Visible oil observed at numerous locations.

Temporal representation

Visible oil observed on more than 13 occasions during a 5-month period.

Data type

13 site inspections by Regional Board staff between February and June, 2000. Visible oil observed. Sample collected showed 156,000 ppm TPH.

Use of standard method

Potential Source(s) of Pollutant

Source is IMCC Chemical mineral extraction operation. Waste Discharge Requirements, Cleanup and Abatement Orders.

Alternative Enforceable Program

The RWQCB has issued Cleanup and Abatement Orders to address this pollutant problem in Searles Lake (Cleanup and Abatement Order Nos. 6-00-64 and 6-00-64A1). These orders require the company to (1) describe methods implemented to significantly reduce the number of waterfowl deaths, (2) eliminate ongoing sources of contaminant concentrations to the Lake, (3) implement any additional methods that are necessary to correct the problems, (4) eliminate all visible petroleum hydrocarbons from surface waters of the Lake, (5) remove or remediate to non-detect levels, all visible petroleum hydrocarbon contaminated surface soils and sediments, and (6) to periodically report on the effectiveness of remediation efforts.

RWQCB Recommendation

List.

Region 6: Searles Lake Petroleum Hydrocarbons

SWRCB Staff Recommendation

After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that Searles Lake should be removed from the section 303(d) list and placed on the Enforceable Program List because applicable water quality standards are exceeded but other programs will better address the problem.*

This conclusion is based on the staff findings that:

- 1. The data is considered to be of adequate quality.
- 2. The data exhibited sufficient spatial and temporal coverage.
- 3. Beneficial uses have been established for the water body.
- 4. The evaluation guideline used to interpret narrative water quality standards is adequate.
- 5. Data are numerical, not numerical, both numerical and not numerical.
- 6. Standard methods were used.
- 7. Other water body- or site-specific information including the effects of natural sources and age of the data were considered.

^{*} A determination of whether or not this water body is a "water of the United States" will be made by the Regional Water Quality Control Board.

Region 6: Snow Creek Habitat Alterations

Water Body	Snow Creek
Stressor/Media/Beneficial Use	Habitat Alterations/Habitat/Aquatic life
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and benefical use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	
RWQCB Recommendation	Delist due to implementation of a wetland/riparian restoration program that included removal of fill material, restoration of the stream channel, revegetation, and installation of culverts to allow fish passage and reduce highway flooding.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be removed from the section 303(d) list because although applicable water quality standards were exceeded, the problem is

flooding.

not due to a pollutant and another program addressed the problem--i.e., implementation of a wetland/riparian restoration program that included removal of fill material, restoration of the stream channel, revegetation, and installation of culverts to allow fish passage and reduce highway

Region 6: Swauger Creek Pathogens

Water Body Swauger Creek

Stressor/Media/Beneficial Use Pathogens/Water/Human health

Data quality assessment. Extent to which data quality requirements met.

QA procedures used.

Linkage between measurement endpoint and benefical use or standard

Pathogens are linked to Human Health.

Utility of measure for judging if standards or uses are not attained

Measurement can be directly compared to WQO.

Water Body-specific Information Data collected from March 2000- June 2001.

Data used to assess water quality

Data exceeded the WQO (40/100 ml) in at least 5 of 16 samples (31%).

The WQO allows no more than 10% of samples to exceed the 40/100 ml.

Spatial representation Targeted in water body.

Temporal representation Data collected from March 2000- June 2001.

Data type Fecal coliform counts are numeric information.

Use of standard method

Potential Source(s) of Pollutant Livestock, wildlife, septic systems, human recreational users.

Alternative Enforceable Program

List.

SWRCB Staff Recommendation

RWQCB Recommendation

After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

This conclusion is based on the staff findings that:

- 1. The data is considered to be of adequate quality.
- 2. The data exhibited sufficient spatial and temporal coverage.
- 3. Beneficial uses have been established for and apply to the water body.
- 4. Water quality standard used is applicable.
- 5. Data are numerical.
- 6. Standard methods were used.
- 7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered.

Region 6: Swauger Creek Phosphorus

Water Body Swauger Creek

Stressor/Media/Beneficial Use Phosphorus/Water/Aquatic life

Data quality assessment. Extent to which data quality requirements met.

QA procedures used.

Linkage between measurement endpoint and benefical use or standard

Phosphorus is linked to Aquatic Life.

Utility of measure for judging if standards or uses are not attained

Measurement can be directly compared to WQO.

Water Body-specific Information Data collected from 2000-2001.

Data used to assess water quality Data showed violations of the WQO (0.06 mg/L as an annual mean) in

both years.

Spatial representation Targeted in water body.

Temporal representation Annual mean.

Data type WQO and water column chemistry data are numeric values.

Use of standard method

Potential Source(s) of Pollutant Partially natural sources.

Alternative Enforceable Program

RWQCB Recommendation List.

SWRCB Staff Recommendation

After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

This conclusion is based on the staff findings that:

- 1. The data is considered to be of adequate quality.
- 2. The data exhibited sufficient spatial and temporal coverage.
- 3. Beneficial uses have been established for and apply to the water body.
- 4. Water quality standard used is applicable.
- 5. Data are numerical.
- 6. Standard methods were used.
- 7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered.

Region 6: Tallac Creek (Tributary To Lake Tahoe) Pathogens

Water Body Tallac Creek (Tributary To Lake Tahoe)

Stressor/Media/Beneficial Use Pathogens/Water/Human Health

Data quality assessment. Extent to which data quality requirements met.

QA procedures used.

Linkage between measurement endpoint and benefical use or standard

Pathogens are linked to Human Health.

Utility of measure for judging if standards or uses are not attained

Measurement can be directly compared to WQO.

Water Body-specific Information Data collected in 2001.

Data used to assess water quality

Data collected in 2001 from 2 sampling stations showed 4 violations of the

WQO at the downstream station.

Spatial representation 2 sampling stations.

Temporal representation Data collected in 2001.

Data type Fecal coliform counts are numeric information.

Use of standard method

Potential Source(s) of Pollutant Livestock wastes are primary source.

Alternative Enforceable Program

RWQCB Recommendation List.

SWRCB Staff Recommendation

After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

This conclusion is based on the staff findings that:

- 1. The data is considered to be of adequate quality.
- 2. The data exhibited sufficient spatial and temporal coverage.
- 3. Beneficial uses have been established for and apply to the water body.
- 4. Water quality standard used is applicable.
- 5. Data are numerical.
- 6. Standard methods were used.
- 7. Other water body- or site-specific information including the age of the data were considered.

Region 6: Tinemaha Reservoir Arsenic

Water Body	Tinemaha Reservoir
Stressor/Media/Beneficial Use	Arsenic/Water/Drinking
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and benefical use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	Source is of volcanic origin, with no sources of industrial or agricultural discharges.
Alternative Enforceable Program	N/A
RWQCB Recommendation	Delist due to natural causes. Beneficial use is drinking water supply for City of Los Angeles Arsenic is removed from this water supply before delivery for use.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be removed from the section 303(d) list because the source is entirely natural. The beneficial use is drinking water supply for

delivery for use.

City of Los Angeles. Arsenic is removed from this water supply before

Region 6: Top Spring Radiation

Water Body	Top Spring
Stressor/Media/Beneficial Use	Radiation/Water/Human health
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and benefical use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	Natural source of radioactivity. Spring is contained within a pipe and is not used as a water supply.
Alternative Enforceable Program	
RWQCB Recommendation	Delist because exceedence of standards is due to natural causes. TMDL is not applicable.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be removed from the section 303(d) list because the sources are entirely natural.

Region 6: Trout Creek (above Hwy 50, below Hwy 50) (was Trout Creek [+ Pathogens

Water Body Trout Creek (above Hwy 50, below Hwy 50) (was Trout Creek [above and

below Hwy 50] [Tributary to Lake Tahoe])

Stressor/Media/Beneficial Use Pathogens/Water/Human health

Data quality assessment. Extent to which data quality requirements met.

QA procedures used.

Linkage between measurement endpoint

and benefical use or standard

Pathogens are linked to Human Health.

Utility of measure for judging if standards or uses are not attained

Measurement can be directly compared to WQO.

Water Body-specific Information Data collected between June-Sept, 2001.

Data used to assess water quality

Data showed frequent violations of WQOs for fecal coliform bacteria.

Spatial representation Targeted in water body.

Temporal representation Data collected between June-Sept, 2001.

Data type Fecal coliform counts are numeric information.

Use of standard method

Potential Source(s) of Pollutant Livestock wastes are primary source.

Alternative Enforceable Program

RWQCB Recommendation List.

SWRCB Staff Recommendation

After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

This conclusion is based on the staff findings that:

- 1. The data is considered to be of adequate quality.
- 2. The data exhibited sufficient spatial and temporal coverage.
- 3. Beneficial uses have been established for and apply to the water body.
- 4. Water quality standard used is applicable.
- 5. Data are numerical.
- 6. Standard methods were used.
- 7. Other water body- or site-specific information including the age of the data were considered.

Region 6: Trout Creek (above Hwy 50, below Hwy 50) (was Trout Creek [+ Phosphorus

Water Body Trout Creek (above Hwy 50, below Hwy 50) (was Trout Creek [Tributary

to Lake Tahoe])

Yes.

Stressor/Media/Beneficial Use Phosphorus/Water/Aquatic Life

Data quality assessment. Extent to which data quality requirements met.

Phosphorus is linked to Aquatic Life.

Linkage between measurement endpoint and benefical use or standard

Utility of measure for judging if standards or uses are not attained

Measurement can be directly compared to WQO.

Water Body-specific Information Data collected between 1980-1996.

Data used to assess water quality

Annual means for 14 of 14 water years exceed the WQO (0.015 mg/L

annual mean).

Spatial representation Targeted in water body.

Temporal representation Annual means for 14 of 14 water years.

Data type WQO and water column chemistry data are numeric values.

Use of standard method

Potential Source(s) of Pollutant Sources are erosion, stormwater, atmospheric, Deposition due to wetland

and riparian disturbance.

Alternative Enforceable Program

RWQCB Recommendation List.

SWRCB Staff Recommendation

After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

This conclusion is based on the staff findings that:

- 1. The data is considered to be of adequate quality.
- 2. The data exhibited sufficient spatial and temporal coverage.
- 3. Beneficial uses have been established for and apply to the water body.
- 4. Water quality standard used is applicable.
- 5. Data are numerical.
- 6. Standard methods were used.
- 7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered.

Region 6: Trout Creek (above Hwy 50, below Hwy 50) (was Trout Creek [+ Nitrogen

Water Body Trout Creek (above Hwy 50, below Hwy 50) (was Trout Creek [Tributary

to Lake Tahoe])

Stressor/Media/Beneficial Use Nitrogen/Water/Aquatic Life

Data quality assessment. Extent to which data quality requirements met.

QA procedures used.

Linkage between measurement endpoint

and benefical use or standard

Nitrogen is linked to Aquatic Life.

Utility of measure for judging if standards or uses are not attained

Measurement can be directly compared to WQO.

Water Body-specific Information Data collected between 1989-1996.

Data used to assess water quality

Annual means for 6 of 8 water years exceed the WQO (0.19 mg/L annual

mean)

Spatial representation Targeted in water body.

Temporal representation Annual means for 6 of 8 water years.

Data type WQO and water column chemistry data are numeric values.

Use of standard method

Potential Source(s) of Pollutant Source are natural as well as anthropogenic, including atmospheric

deposition, stormwater, fertilizer use, livestock grazing, septic systems,

wastewater disposal to land.

Alternative Enforceable Program

RWQCB Recommendation List.

SWRCB Staff Recommendation

After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

This conclusion is based on the staff findings that:

- 1. The data is considered to be of adequate quality.
- 2. The data exhibited sufficient spatial and temporal coverage.
- 3. Beneficial uses have been established for and apply to the water body.
- 4. Water quality standard used is applicable.
- 5. Data are numerical.
- 6. Standard methods were used.
- 7. Other water body- or site-specific information including the age of the data were considered.

Region 6: Trout Creek (above Hwy 50, below Hwy 50) (was Trout Creek [+ Iron (plant nutrient)

Water Body Trout Creek (above Hwy 50, below Hwy 50) (was Trout Creek [Tributary

to Lake Tahoe])

Stressor/Media/Beneficial Use Iron (plant nutrient)/Water/Aquatic Life

Data quality assessment. Extent to which data quality requirements met.

QA procedures used.

Linkage between measurement endpoint

and benefical use or standard

Iron is linked to Aquatic Life.

Utility of measure for judging if standards or uses are not attained

Measurement can be directly compared to WQO.

Water Body-specific Information Data collected between 1989-1996.

Data used to assess water quality

Annual means for 8 of 8 water years exceed the WQO (0.03 mg/L annual

nean).

Spatial representation Targeted in water body.

Temporal representation Annual means for 8 of 8 water years.

Data type WQO and water column chemistry data are numeric values.

Use of standard method

Potential Source(s) of Pollutant Natural loading has increased due to increased erosion and stormwater

runoff due to land disturbance.

Alternative Enforceable Program

RWQCB Recommendation List.

SWRCB Staff Recommendation

After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

This conclusion is based on the staff findings that:

- 1. The data is considered to be of adequate quality.
- 2. The data exhibited sufficient spatial and temporal coverage.
- 3. Beneficial uses have been established for and apply to the water body.
- 4. Water quality standard used is applicable.
- 5. Data are numerical.
- 6. Standard methods were used.
- 7. Other water body- or site-specific information including the age of the data were considered.

Region 6: Truckee River, upper (above and below Christmas Valley) (wa + Phosphorus

Water Body Truckee River, upper (above and below Christmas Valley) (was Upper

Truckee River [Tributary to Lake Tahoe])

Stressor/Media/Beneficial Use Phosphorus/Water/Aquatic Life

Data quality assessment. Extent to which data quality requirements met.

QA procedures used.

Linkage between measurement endpoint

and benefical use or standard

Phosphorus is linked to Aquatic Life.

Utility of measure for judging if standards or uses are not attained

Measurement can be directly compared to WQO.

Water Body-specific Information Data collected from 1980-1996.

Data used to assess water quality

Annual means for 17 of 17 water years exceed the WQO (0.015 mg/L

annual mean).

Spatial representation Targeted in water body.

Temporal representation Annual means for 17 of 17 water years.

Data type WQO and water column chemistry data are numeric values.

Use of standard method

Potential Source(s) of Pollutant Erosion, fertilizer use, stormwater.

Alternative Enforceable Program

RWQCB Recommendation List.

SWRCB Staff Recommendation

After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

This conclusion is based on the staff findings that:

- 1. The data is considered to be of adequate quality.
- 2. The data exhibited sufficient spatial and temporal coverage.
- 3. Beneficial uses have been established for and apply to the water body.
- 4. Water quality standard used is applicable.
- 5. Data are numerical.
- 6. Standard methods were used.
- 7. Other water body- or site-specific information including the age of the data were considered.

Region 6: Truckee River, upper (above and below Christmas Valley) (wa + Iron (plant nutrient)

Water Body Truckee River, upper (above and below Christmas Valley) (was Upper

Truckee River [Tributary to Lake Tahoe])

Stressor/Media/Beneficial Use Iron (plant nutrient)/Water/Aquatic Life

Data quality assessment. Extent to which data quality requirements met.

QA procedures used.

Linkage between measurement endpoint

and benefical use or standard

Iron is linked to Aquatic Life.

Utility of measure for judging if standards or uses are not attained

Measurement can be directly compared to WQO.

Water Body-specific Information Data collected from 1989-1996.

Data used to assess water quality

Annual means for 8 of 8 water years exceed the WQO (0.03 mg/L annual

nean).

Spatial representation Targeted in water body.

Temporal representation Annual means for 8 of 8 water years.

Data type WQO and water column chemistry data are numeric values.

Use of standard method

Potential Source(s) of Pollutant Natural background, increased loading due to land disturbance, stormwater.

Alternative Enforceable Program

RWQCB Recommendation List

SWRCB Staff Recommendation

After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

This conclusion is based on the staff findings that:

- 1. The data is considered to be of adequate quality.
- 2. The data exhibited sufficient spatial and temporal coverage.
- 3. Beneficial uses have been established for and apply to the water body.
- 4. Water quality standard used is applicable.
- 5. Data are numerical.
- 6. Standard methods were used.
- 7. Other water body- or site-specific information including the age of the data were considered.

Region 6: Truckee River, upper (above Christmas Valley) (was Upper Tr + **Pathogens**

Truckee River, upper (above Christmas Valley) (was Upper Truckee River Water Body

[Tributary to Lake Tahoe])

Stressor/Media/Beneficial Use Pathogens/Water/Human Health

Data quality assessment. Extent to which data quality requirements met. QA procedures used.

Linkage between measurement endpoint

and benefical use or standard

Pathogens are linked to Human Health.

Utility of measure for judging if standards or uses are not attained Measurement can be directly compared to WQO.

Water Body-specific Information Data collected from 1999-2001.

Data used to assess water quality Violations of WQO observed in July, August and Sept. 2001, during

grazing season. (WQO = 20/100ml log mean during any 30-day period or not more than 10% of samples to exceed 40/100 ml in any 30-day period).

Spatial representation Violations of WQO observed at 2 stations in 2000 at end of grazing season.

Temporal representation Violations of WQO observed in July, August and Sept. 2001, during

grazing season.

Data type WQO and fecal coliform counts are numeric information.

Use of standard method

Potential Source(s) of Pollutant Waste from livestock grazing believed to be primary source.

Alternative Enforceable Program USFS Grazing management plan.

RWQCB Recommendation List.

After reviewing the available data and information and the RWQCB **SWRCB Staff Recommendation**

> documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or

causes the problem.

This conclusion is based on the staff findings that:

1. The data is considered to be of adequate quality.

2. The data exhibited sufficient spatial and temporal coverage.

3. Beneficial uses have been established for and apply to the water body.

4. Water quality standard used is applicable.

5. Data are numerical.

6. Standard methods were used.

7. Other water body- or site-specific information including the age of the

data were considered.

Region 6: Virginia Creek **Pathogens**

Virginia Creek Water Body

Stressor/Media/Beneficial Use Pathogens/Water/Human health

Data quality assessment. Extent to which data quality requirements met. QA procedures used.

Linkage between measurement endpoint

and benefical use or standard

Pathogens are linked to Human Health.

Utility of measure for judging if standards or uses are not attained Measurement can be directly compared to WQO.

Water Body-specific Information Data collected between April 2000- June 2001.

Data used to assess water quality 1 of 15 fecal coliform samples (7%) exceeded the WQO of 40/100 ml.

WQO requires that no more than 10% of samples collected in any 30-day

period shall exceed 40/100 ml. Standard is being met.

Spatial representation Targeted in water body.

Temporal representation No more than 10% of samples collected in any 30-day period shall exceed

Data type Fecal coliform counts are numeric information.

Use of standard method

Potential Source(s) of Pollutant

Alternative Enforceable Program

RWQCB Recommendation Do not list.

SWRCB Staff Recommendation After reviewing the available data and information and the RWOCB

> documentation for this recommendation, SWRCB staff concludes that the water body should not be placed on the section 303(d) list because

applicable water quality standards are not exceeded.

An inadequate amount of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not

exceeded is moderate.

Region 6: Ward Creek (Tributary To Lake Tahoe) Nitrogen

Water Body Ward Creek (Tributary To Lake Tahoe)

Stressor/Media/Beneficial Use Nitrogen/Water/Aquatic Life

Data quality assessment. Extent to which data quality requirements met.

QA procedures used.

Linkage between measurement endpoint and benefical use or standard

Nitrogen is linked to Aquatic Life.

Utility of measure for judging if standards or uses are not attained

Measurement can be directly compared to WQO.

Water Body-specific Information Data collected from 1989-1996.

Data used to assess water qualityData exceeded WQO in 7 of 8 years.

Spatial representation Targeted in water body.

Temporal representation Data collected over 8 year period.

Data type Fecal coliform counts are numeric information.

Use of standard method

Potential Source(s) of Pollutant Natural (nitrogen fixation) and anthropogenic (atmospheric, deposition,

erosion, stormwater).

Alternative Enforceable Program

RWQCB Recommendation List.

SWRCB Staff Recommendation

After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

This conclusion is based on the staff findings that:

- 1. The data is considered to be of adequate quality.
- 2. The data exhibited sufficient spatial and temporal coverage.
- 3. Beneficial uses have been established for and apply to the water body.
- 4. Water quality standard used is applicable.
- 5. Data are numerical.
- 6. Standard methods were used.
- 7. Other water body- or site-specific information including the age of the data were considered.

Region 6: Ward Creek (Tributary To Lake Tahoe) Phosphorus

Water Body Ward Creek (Tributary To Lake Tahoe)

Stressor/Media/Beneficial Use Phosphorus/Water/Aquatic Life

Data quality assessment. Extent to which data quality requirements met.

QA procedures used.

Linkage between measurement endpoint and benefical use or standard

Phosphorous is linked to Aquatic Life.

Utility of measure for judging if standards or uses are not attained

Measurement can be directly compared to WQO.

Water Body-specific Information Data collected from 1980-1996.

Data used to assess water quality

Annual means for 15 of 17 water years exceed the WQO (0.015 mg/L)

annual mean).

Spatial representation Targeted in water body. Locations unknown.

Temporal representation Annual means for 17 water years.

Data type WQO and water column chemistry data are numeric values.

Use of standard method

Potential Source(s) of Pollutant Erosion, stormwater, atmospheric deposition.

Alternative Enforceable Program

List.

SWRCB Staff Recommendation

RWQCB Recommendation

After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

This conclusion is based on the staff findings that:

- 1. The data is considered to be of adequate quality.
- 2. The data exhibited sufficient spatial and temporal coverage.
- 3. Beneficial uses have been established for and apply to the water body.
- 4. Water quality standard used is applicable.
- 5. Data are numerical.
- 6. Standard methods were used.
- 7. Other water body- or site-specific information including the age of the data were considered.

Region 6: Ward Creek (Tributary to Lake Tahoe) Iron (plant nutrient)

Ward Creek (Tributary to Lake Tahoe)

Water Body

Stressor/Media/Beneficial Use Iron (plant nutrient)/Water/Aquatic Life

Data quality assessment. Extent to which data quality requirements met. QA procedures used.

Linkage between measurement endpoint and benefical use or standard

Iron is linked to Aquatic Life.

Utility of measure for judging if standards or uses are not attained Measurement can be directly compared to WQO.

Water Body-specific Information Data collected from 1989-1996.

Data used to assess water quality Annual means for 8 of 8 water years exceed the WQO (0.03 mg/L annual

Targeted in water body. **Spatial representation**

Annual means for 8 water years. **Temporal representation**

Data type WOO and water column chemistry data are numeric values.

Use of standard method

Potential Source(s) of Pollutant Iron is naturally present in soil, but loading has increased due to erosion

from land disturbance.

Alternative Enforceable Program

RWQCB Recommendation List.

SWRCB Staff Recommendation

After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

This conclusion is based on the staff findings that:

- 1. The data is considered to be of adequate quality.
- 2. The data exhibited sufficient spatial and temporal coverage.
- 3. Beneficial uses have been established for and apply to the water body.
- 4. Water quality standard used is applicable.
- 5. Data are numerical.
- 6. Standard methods were used.
- 7. Other water body- or site-specific information including the age of the data were considered.

Region 6: Wendel Hot Springs, Amedee Hot Springs, Hot Creek, Fales Ho + Salinity, metals, arsenic

Water Body Wendel Hot Springs, Amedee Hot Springs, Hot Creek, Fales Hot Springs,

Little Hot Creek, Little Alkali Lake, Deep Springs Lake, Keogh Hot

Springs, Amaragosa River

Stressor/Media/Beneficial Use Salinity, metals, arsenic

Data quality assessment. Extent to which data quality requirements met.

N/A

Linkage between measurement endpoint

and benefical use or standard

N/A

Utility of measure for judging if standards or uses are not attained

Temporal representation

N/A

Water Body-specific Information

N/A

Data used to assess water quality

N/A N/A

Spatial representation N/A

•

Data type N/A

Use of standard method N/A

Potential Source(s) of Pollutant Natural causes.

Alternative Enforceable Program

RWQCB Recommendation Delist due to natural causes of impairments. Basin Plan amendments for 9

waters to remove MUN use have been approved by SWRCB. Use

attainability analysis has been prepared by RWQCB.

SWRCB Staff Recommendation After reviewing the available data and information and the RWQCB

documentation for this recommendation, SWRCB staff concludes that the water body should be removed from the section 303(d) list because the source of impacts to water quality standards is natural. Basin Plan amendments for nine water bodies to remove the MUN use have been approved by SWRCB. A Use Attainability Analysis has been prepared by

RWQCB.



Water Bodies Proposed for the Monitoring List in Region 6

Water Body	Pollutant/Stressor	Rationale
Angora Lake,	upper	
	Pesticides (16 different compounds)	USGS study showed detectable levels of pesticides (in violation of RWQCB narrative objective). However, data quantity was considered insufficient to warrant listing. Additional monitoring is necessary to confirm impacts to beneficial uses.
Arrowhead, La Arrowhead)	ake (was Lake	
	Boat fuel constituents (Petroleum Products), nutrients	For boat fuel constituents: The Lake is used extensively for boating. Based on sampling elsewhere in Region 6, boat fuel constituents may be impacting water quality and aquatic life uses. Additional monitoring is necessary to establish this likelihood.
		For nutrients: The watershed is heavily developed and the Lake is almost certainly impacted by stormwater discharges and atmospheric nutrient deposition. Additional monitoring is necessary to confirm these likelihoods.
Asa Lake		
	Nutrients	This water body was identified as "threatened" or "intermediate" in earlier Section 305(b) assessments due to high nutrient concentrations. These conditions likely persist, but no recent data is available in order to asses the current level and extent of threats to beneficial uses.
Aurora Canyon	n Creek	
	Total dissolved solids, nitrogen, phosphorus, mercury	For nitrogen, phosphorus, and total dissolved solids: A study sponsored by the North Mono Resource Conservation District showed some violations of water quality objectives, but quality assurance/quality control information was not provided for the RWQCB review.
		For mercury: There is an abandoned mercury ore mill in the watershed. It is the subject of a currently inactive CERCLA project. Testing in 1980s showed mercury in soil and sediment exceeding certain criteria used in the CERCLA process. However, there is no recent data available. Up-to-date monitoring is necessary to confirm likely impacts to beneficial uses.
Barney Lake		
	Nitrogen	Study sponsored by North Mono RCD showed the possibility for water quality problems, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary.
Blackwood Cr	eek	
	Pesticides (4 different compounds)	USGS study showed detectable levels of pesticides. However, data quantity was considered insufficient to evaluate compliance. Additional monitoring is necessary.
Blue Lake		
	Nitrogen	Study sponsored by North Mono RCD showed the potential for impacts on water quality, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary.
Bonnie Lake		
	Nitrogen	Study sponsored by North Mono RCD showed the potential for water quality problems, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary.

Water Body	Pollutant/Stressor	Rationale
Buckeye Creek	ζ	
	Phosphorus	While the water quality objective is not exceeded, it is probably set at a level too high to protect beneficial uses. In other words, existing beneficial uses are probably being deleteriously impacted. Additional monitoring is necessary to confirm this and to allow revision of the inappropriate objective.
	Total dissolved solids	Study sponsored by North Mono RCD shows the potential for a water quality problem, but quality assurance/quality control information was not provided for the RWQCB listing effort. More monitoring is necessary.
Carson River, (headwaters to Woodfords to Paynesville to West Fork Car	Woodfords, Paynesville, State Line) (was	
	sulfate, boron	The RWQCB objectives are exceeded, but insufficient data were available to determine whether the constituent causing the problem were pollutants or from natural sources. Additional study is needed to determine this information.
Chain o Lakes		
	Nitrogen	Study sponsored by North Mono RCD showed the potential for a water quality problem, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary.
Cold Stream		Ç
	Sediment	The degree of attainment of water quality standards cannot be determined for this water body. Additional monitoring and assessment is required in order to determine more accurately the need for development of a TMDL.
Cooney Lake		
	Nitrogen	Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.
Crown Lake		
	Nitrogen	Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.
Deep Creek		
	Total dissolved solids, sulfate, fluoride	Prior monitoring showed some violations of water quality objectives. However, data quantity was insufficient to warrant listing. Also, quality assurance/quality control information was not available. Further study is necessary to gather appropriate data.
Desert Creek		
	Sulfate, acid mine drainage	An inactive mine in California discharges into this water body. Monitoring downstream in Nevada shows high sulfate levels. Monitoring in California is needed to confirm impacts to beneficial uses.
Diaz Lake		
	Nutrients	Lake was identified as "threatened" or "intermediate" in an earlier Section 305(b) assessment. RWQCB staff observations strongly suggest that beneficial uses are being impacted. However, there is no recent data available.
Donner Creek		
	Sediment	RWQCB staff have observed streambank erosion downstream of Donner Lake. The Creek is affected by releases from lake and was impacted by a 1997 flood. Water quality monitoring is required to confirm impacts to beneficial uses.

Water Body	Pollutant/Stressor	Rationale
Donner Lake		
	Boat Fuel Constituents (Petroleum Products)	A U.C. Davis study shows increases in petroleum hydrocarbons following peak boating weekends. The results of the ongoing Lake Tahoe study of PAH-effects on aquatic life are needed (but currently unavailable) in order to determine whether beneficial uses at Donner Lake are impacted.
	Pathogens	The (surface water) drinking water system at the Lake was recently upgraded due to reports of illness; further source water monitoring is necessary to confirm likely impacts to beneficial uses.
Eagle Creek		
	Nitrogen, phosphorus	Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.
Eagle Lake		
	Mercury	Limited amounts of Department of Water Resources data show violations of criteria in water, sediment and fish tissue. (The source is probably natural.) Additional data are needed to confirm impairment.
East Lake		
	Nitrogen	Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.
East Walker R Bridgeport Re		
	Phosphorus, nickel	The RWQCB water quality objective is not exceeded, but is probably set at a level too high to protect beneficial uses. In other words, existing beneficial uses are probably being deleteriously impacted. Additional monitoring is necessary to confirm this and to allow revision of the inappropriate objective.
East Walker R Bridgeport Re		
	Fuel oil (spill), mercury, nickel and other metals	For mercury, nickel, and other metals: There is an abandoned mercury ore mill in the watershed. There have been elevated metal levels (including mercury) in Toxic Substances Monitoring Program fish tissue samples. Additional sampling is necessary to establish exactly to what extent water quality standards are being impacted. (The entire East Walker River is proposed to be removed from the 303(d) list due to metals.)
		For Fuel oil (spill): Results of monitoring associated with cleanup activities were not available to RWQCB 303(d) assessment staff. Long term monitoring is necessary to document beneficial use recovery.
Echo Lake, Lo Echo Lake)	ower (was Lower	
	Nutrients	The watershed is affected by gray water discharges from summer homes and human waste from heavy backcountry recreational use. Limited monitoring by the Tahoe Regional Planning Agency shows higher nitrogen concentrations than in oligotrophic Fallen Leaf Lake. Additional monitoring is necessary to help protect beneficial uses of this important water body.
Echo Lake, up	per	
	Nitrogen	The watershed is significantly affected by human wastes from heavy backcountry recreational use. Limited monitoring by the Tahoe Regional Planning Agency shows higher nitrogen concentration levels than in oligotrophic Fallen Leaf Lake. More monitoring is required to help accurately determine the nature and extent of impacts to water quality standards at the Lake.

Water Body	Pollutant/Stressor	Rationale
Emerson Cree	k	
	Sediment	Streams on east slope of Warner Mountains were "blown out" by January 1997 flood; no quantitative data is currently available to determine beneficial use impacts, but ongoing impacts are likely.
Fallen Leaf La	ake	
	Nutrients	A 1990s U.C. Davis study indicated that the Lake is oligotrophic, but the study did not document the reason for the 1980s taste and odor problems (associated with algae blooms). Periodic monitoring as part of the overall Tahoe Basin monitoring program is necessary.
Fredericksburg	g Canyon Creek	
	Sediment	RWQCB staff analysis for earlier Section 305(b) assessment pointed to erosion, from area affected by wildfire, as a significant cause of water quality degradation. However, there is no recent data/information to determine the extent and nature of present-day impacts to beneficial uses.
Fremont Lake		
	Nitrogen	Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.
Frog Lake		
	Nitrogen	Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.
General Creek	-	
	Pesticides (5 different compounds)	USGS study showed detectable levels of pesticides. However, data quantity was considered insufficient to warrant listing. Additional monitoring is necessary to confirm impacts to beneficial uses.
George, Lake	(was Lake George)	
	Metals	Lake George was identified as "threatened" or "intermediate" in a prior Section 305(b) assessment based on limited STORET data. Beneficial uses may be impacted. However, no recent data are available.
Gilman Lake		
	Nitrogen	Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.
Grass Lake W	etlands	
	Road salt	This is a USFS Significant Natural Area (sphagnum bog). Agency concern has been expressed about road salt impacts but no monitoring data were available for review. Monitoring is necessary to establish likely impacts to water quality standards.
Green Creek		
	Nitrogen	USGS data provided included a number of estimated values and one violation of objective. Additional data is needed to determine without a doubt whether the water quality objective is being violated.
Green Creek,	above Green Lake	
	Nitrogen	Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.

Water Body	Pollutant/Stressor	Rationale
Green Lake		
	Nitrogen	Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.
Griff Creek		
	Sediment	An erosion control project was implemented in early 1980s. However, there is no recent monitoring data available. Observations suggest problems, but up-to-date sampling is necessary to confirm impacts to water quality standards.
Gull Lake		
	Nitrogen	The June Lakes watershed is significantly affected by stormwater discharges from recent development. Additional monitoring is necessary to document the types and extents of impacts to beneficial uses.
Harriet Lake		
	Nitrogen	Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.
USFS boundar	rout Creek (was	
ileaveilly vali	Nitrogen	The RWQCB objective was possibly violated in the lower reach of the Creek, which is
		affected by a former wastewater disposal area and by urban runoff. However, data quantity was considered insufficient to warrant listing in 2002.
Heenan Reser	voir	
	Nitrogen	Fish kills have occurred here due to dissolved oxygen depletion. The Department of Fish and Game maintains aerators there. The Reservoir is observed to have high levels of algae. However, there was no nutrient information available at the time of listing. Additional monitoring is necessary to confirm likely impacts to beneficial uses.
Helen Lake		
	Nitrogen	Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.
Hidden Valley		
Unnamed cree Valley Creek]	ek [aka Hidden)	
	Chloride	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the Monitoring List because the major source of pollutants is natural.
	Phosphorus	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the Monitoring List because the major source of pollutants is natural.
Hoover Lake		·
	Nitrogen	Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.
Horse Creek		
	Nitrogen	Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.

Phosphorus, nitrogen Radioactive elements (lanthanides)	Mercury levels in Toxic Substances Monitoring Program fish tissue sample exceeded the MTRL guidance level. Additional sampling is needed to verify the extent and nature of impacts to beneficial uses. Prior (RWQCB) sampling showed high phosphorus and nitrogen levels but Creek has no site specific phosphorus/nitrogen objectives. Additional monitoring is required in order to confirm likely impacts to existing beneficial uses. Ongoing cleanup action has been implemented for spills from Molycorp mining/ore processing facilities and past waste-disposal onto the Lake bed. More data is needed to assess impacts of lanthanides on beneficial uses of ephemeral Lake waters.
Phosphorus, nitrogen ee Radioactive elements (lanthanides)	MTRL guidance level. Additional sampling is needed to verify the extent and nature of impacts to beneficial uses. Prior (RWQCB) sampling showed high phosphorus and nitrogen levels but Creek has no site specific phosphorus/nitrogen objectives. Additional monitoring is required in order to confirm likely impacts to existing beneficial uses. Ongoing cleanup action has been implemented for spills from Molycorp mining/ore processing facilities and past waste-disposal onto the Lake bed. More data is needed to
Radioactive elements	site specific phosphorus/nitrogen objectives. Additional monitoring is required in order to confirm likely impacts to existing beneficial uses. Ongoing cleanup action has been implemented for spills from Molycorp mining/ore processing facilities and past waste-disposal onto the Lake bed. More data is needed to
Radioactive elements	site specific phosphorus/nitrogen objectives. Additional monitoring is required in order to confirm likely impacts to existing beneficial uses. Ongoing cleanup action has been implemented for spills from Molycorp mining/ore processing facilities and past waste-disposal onto the Lake bed. More data is needed to
Radioactive elements Tanthanides)	processing facilities and past waste-disposal onto the Lake bed. More data is needed to
(lanthanides)	processing facilities and past waste-disposal onto the Lake bed. More data is needed to
Nutrients, mercury	
Nutrients, mercury	
	For nutrients: The June Lakes watershed is significantly affected by stormwater from development. Additional monitoring is necessary to establish the exact level of impacts to water quality standards.
	For mercury: A Toxic Substances Monitoring Program fish tissue sample exceeded MTRL criterion. The source is probably natural (volcanic). Further monitoring is needed to determine whether impacts to beneficial uses exist.
Nutrients	Study sponsored by North Mono RCD shows some violations of water quality objectives, but quality assurance/quality control information was not provided for the RWQCB listing effort. Monitoring is required in order to determine if beneficial uses are truly being impacted.
Sediment	RWQCB staff has on numerous occasions noted visual evidence of likely harmful impacts to beneficial uses from existing sediment loads. However, appropriate water quality sampling is needed to confirm this observations.
Nutrients	From the 1970s, data and RWQCB staff observations indicate lake is eutrophic (probably natural marsh development). However, there is no recent nutrient data. Monitoring is necessary to confirm impacts to beneficial uses.
iver	
Sediment	DFG comments during earlier list update-cycle identified sediment problems associated with diversion to Sierra Valley (Feather River) watershed. However, appropriate water quality sampling is necessary to confirm these observations.
ver	
Sediment, total dissolved solids, nitrogen	Study sponsored by North Mono RCD shows some violations of water quality objectives, but quality assurance/quality control information was not provided for the RWQCB listing effort. Monitoring is required in order to determine if beneficial uses are truly being impacted.
oir/oir	
Sediment, iron, manganese	For sediment: The Palmdale Water District is planning a large-scale sediment removal project. However, there is no data available on impacts of sediment on aquatic life uses. Monitoring is needed to determine the exact nature of likely impacts to beneficial uses.
	For iron and manganese: Palmdale Water District customer reports show source water concentrations exceeding the applicable MCL guideline (and therefore the RWQCB "Chemical Constituents" objective). More monitoring is necessary to pin down the
i	Nutrients ver dediment ver dediment, total dissolved olids, nitrogen

Water Body	Pollutant/Stressor	Rationale
Lonely Gulch	Creek	
	Sediment	Severe impacts resulted to the Creek in the 1960s-1970s from subdivision development. Up-to-date monitoring is necessary confirm problems/improvements from recent watershed restoration projects.
Long Lake (Lo	ower)	
	Nitrogen	Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.
Long Lake (U	pper)	
	Nitrogen	Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.
Long Valley C	Creek	
	Sediment	RWQCB staff has on numerous occasions noted visual evidence of likely harmful impacts to beneficial uses from existing sediment loads. However, appropriate water quality sampling is necessary to confirm these observations. The Creek is affected by grazing and gravel quarrying.
Los Angeles A	Aqueduct	
	Copper	High levels of copper have been found in the Los Angeles aqueduct/reservoir system from copper-based algaecide applications. The RWQCB is concerned about beneficial use impacts. More monitoring is required.
Lundy Lake		
	Mine drainage (Acid Mine Drainage)	An inactive mine affects the watershed. Toxic Substances Monitoring Program results show elevated metals in fish tissue. However, more monitoring is needed closer to the mine in order to confirm likelihood of impacts to beneficial uses.
Madden Creek		
	Sediment	The Creek was classified as "Marginal" fish habitat in the 1996 Tahoe Regional Planning agency report. Up-to-date monitoring needed to document recovery and impacts to beneficial uses.
Markeeville C	reek	
	Nitrogen, phosphorus, total dissolved solids, chloride	Monitoring shows some violations of applicable objective. But data quantity was insufficient to warrant listing. Additional monitoring is necessary to establish whether water quality standards are truly being impacted.
Martis Creek		
	Nutrients	The Creek is impacted by wastewater discharges to land. Concerns were recently expressed by stakeholders about algae blooms in Martis Creek Reservoir and nutrient discharges from golf courses and other development upstream. Additional monitoring is needed.
Mary, Lake (w	as Lake Mary)	
	Boat fuel constituents, including MTBE (Petroleum Products)	Comments on 303(d) list recommendations by former member of Mammoth County Water District Board discussed detectable MTBE in Lake waters. There is no current substantiation, however. Monitoring is necessary to determine the nature and extent of possible impacts to beneficial uses.
McGee Creek		
	Mine drainage (Acid Mine Drainage)	An inactive mine affects the watershed. Toxic Substances Monitoring Program results show elevated metals in fish tissue. However, more monitoring is needed closer to the mine in order to confirm likelihood of impacts to beneficial uses.

Water Body	Pollutant/Stressor	Rationale
McKinney Cre	eek	
	Sediment	There appear to be significant sediment impacts from road operations/maintenance. Creek restoration is ongoing as a result of Regional Board enforcement actions. The Creek was classified as "Marginal" fish habitat in the 1996 Tahoe Regional Planning agency report. Up-to-date monitoring needed to document recovery and impacts to beneficial uses.
Meeks Creek		
	Sediment	The lower reach of this Creek is affected by stormwater discharges from campgrounds and development activities. There have been recent fires in the watershed, to the detriment of water quality. However, there is no recent sediment sampling data on which to base a listing.
Meiss Lake		
	Nutrients	The Lake appears to be naturally eutrophic (marshy) and may, as such, be particularly affected by wastes from livestock and recreational users. Unfortunately, there is no quantitative data available at this time, prompting the need for additional monitoring.
Mill Creek		
	Nitrogen	Study sponsored by North Mono RCD shows some violations of water quality objectives, but quality assurance/quality control information was not provided for the RWQCB listing effort. Monitoring is required in order to determine if beneficial uses are truly being impacted.
Mojave River	at Dam Forks	
	Sulfate	Prior monitoring showed some violations of water quality objective. However, data quantity was insufficient to warrant listing. Further study is required to accurately determine the extent and nature of impacts to beneficial uses.
Mojave River	at Lower Narrows	
	Nutrients	Prior monitoring showed some violations of water quality objective. However, data quantity was insufficient to warrant listing. Further study is required to accurately determine the extent and nature of impacts to beneficial uses.
Mojave River Lower Narrow	between Upper and	
	Chloride	Prior monitoring showed some violations of water quality objective. However, the RWQCB determined that data quantity was insufficient to warrant listing. Further study is required to accurately determine the extent and nature of impacts to beneficial uses.
	PCE and TCE (organic solvents)	The subsurface flow of the River is affected by PCE/TCE contamination in the groundwater beneath the City of Victorville. However, only one surface water sample is available. More monitoring is needed to determine the nature and extent of impacts to beneficial uses.
	Sulfate	Prior monitoring showed some violations of water quality objective. However, the RWQCB determined that data quantity was insufficient to warrant listing. Further study is required to accurately determine the extent and nature of impacts to beneficial uses.
	TDS	Prior monitoring showed some violations of water quality objective. However, the RWQCB determined that data quantity was insufficient to warrant listing. Further study is required to accurately determine the extent and nature of impacts to beneficial uses.
Mojave River, Waterman Fau		
	Nitrogen, total dissolved solids	Samples collected where (subsurface) flow of river reaches the surface show high levels of nitrogen and TDS, but there are no site-specific nitrogen or TDS objectives for this reach. Nonetheless, beneficial uses are likely being impacted. Further monitoring is needed to confirm this.

Water Body	Pollutant/Stressor	Rationale
Mojave River, West Fork Mo	West Fork (was jave River)	
	Nitrogen	Prior monitoring showed some violations of water quality objective. However, data quantity was insufficient to warrant listing. Further study is required to accurately determine the extent and nature of impacts to beneficial uses.
Monitor Creek		
	Nitrogen, phosphorus	The limited data available indicate nutrient releases from Heenan Reservoir as a possible source of water quality problems. Additional monitoring is necessary to establish the level and extent of present-day impacts.
Peeler Lake		
	Nitrogen	Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.
Pine Creek		
	Mine/tailings drainage, sediment	An inactive mine affects the watershed. Toxic Substances Monitoring Program results show elevated metals in fish tissue. However, more monitoring is needed closer to the mine in order to confirm likelihood of impacts to beneficial uses.
	Nutrients (nitrogen, phosphorus)	Limited data from early 1990s indicate some grounds for concern; Creek is largest tributary to mesotrophic Eagle Lake and nutrient monitoring will be necessary for development of Lake TMDL.
Raider Creek		
	Sediment	Streams on east slope of Warner Mountains were "blown out" by January 1997 flood; no quantitative data is currently available to determine beneficial use impacts, but ongoing impacts are likely.
Red Lake Cree	ek	
	Sulfate, acid mine drainage	An inactive mine affects the watershed. Toxic Substances Monitoring Program results show elevated metals in fish tissue. Carson River monitoring shows relatively high sulfate. However, more monitoring is needed closer to the mine in order to confirm likelihood of impacts to beneficial uses.
Reversed Cree	k	
	Sediment, nutrients	The June Lakes watershed is significantly affected by stormwater from development. Additional monitoring is necessary to establish the exact level of impacts to water quality standards.
Robinson Cree	ek	
	Total dissolved solids, phosphorus	For TDS: Study sponsored by North Mono RCD shows some violations of water quality objectives, but quality assurance/quality control information was not provided for the RWQCB listing effort. Monitoring is required in order to determine if beneficial uses are truly being impacted.
		For phosphorus: Water quality objective is not exceeded, but is probably set at a level too high to protect beneficial uses. In other words, existing beneficial uses are probably being deleteriously impacted. Additional monitoring is necessary to confirm this and to allow revision of the inappropriate objective.
Robinson Cree	ek above Barney Lake	
	Nitrogen	Study sponsored by North Mono RCD shows some violations of water quality objectives, but quality assurance/quality control information was not provided for the RWQCB listing effort. Monitoring is required in order to determine if beneficial uses are truly being impacted.

Water Body	Pollutant/Stressor	Rationale
Robinson Cree Twin Lakes	ek, Barney Lake to	
	Nitrogen	Study sponsored by North Mono RCD shows some violations of water quality objectives, but quality assurance/quality control information was not provided for the RWQCB listing effort. Monitoring is required in order to determine if beneficial uses are truly being impacted.
Robinson Cree Bridgeport Res	ek, Hwy 395 to servoir	
	Nitrogen	Study sponsored by North Mono RCD shows some violations of water quality objectives, but quality assurance/quality control information was not provided for the RWQCB listing effort. Monitoring is required in order to determine if beneficial uses are truly being impacted.
Robinson Lake	e (Lower)	
	Nitrogen	Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.
Robinson Lake	e (Upper)	
	Nitrogen	Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.
Roosevelt Lak	e	
	Nitrogen	Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.
Ruth Lake		
	Nitrogen	Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.
Sawmill Pond		
	Sediment	The Pond received a threatened/intermediate rating in an earlier Section 305(b) assessment due to construction-related problems. There is no recent data. It is likely that there are significant impacts to beneficial uses. More up-to-date monitoring is required to verify this.
Scotts Lake		
	Sediment	RWQCB staff observations made for an earlier Section 305(b) assessment suggested that this water body is significantly impacted. Impacts to existing beneficial uses probably continue. However, there is no recent data/information to determine the extent and nature of present-day impacts to beneficial uses.
Shake Creek		
	Total dissolved solids, nitrate, sulfate, boron, fluoride, landfill leachate constituents	Monitoring associated with landfill maintenance shows exceedances of objectives. However, data quantity was insufficient to warrant listing at that time. Additional monitoring is necessary to confirm likely impacts to beneficial uses.
Sherwin Creek	S	
	Sediment, nutrients	Agency concern exists about the impacts of erosion and stormwater discharges from urban and ski resort development. Deleterious effects on beneficial uses are likely. However, no recent data are available.

Water Body	Pollutant/Stressor	Rationale
Silver Creek		
	Metals/acid mine drainage	An inactive mine affects the watershed. Toxic Substances Monitoring Program results show elevated metals in fish tissue. More monitoring is needed closer to the mine in order to confirm likelihood of impacts to beneficial uses.
Silver Lake		
	Nutrients	The June Lakes watershed is significantly affected by stormwater discharges from recent development. Additional monitoring is necessary to document the types and extents of impacts to beneficial uses.
Silverwood La	ıke	
	Salts, trace elements from imported water (Salinity)	Elevated metal levels were found in Toxic Substances Monitoring Program fish tissue samples. A concern was expressed by stakeholders about impacts of imported water on local drinking water supplies. Additional sampling is needed to establish the level and extent of impacts to beneficial uses.
Snow Lake		
	Nitrogen	Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.
Spring Valley	Lake	
	Sediment	The Lake was identified as "threatened" or "intermediate" in an earlier Section 305(b) assessment. RWQCB staff observations suggest the strong possibility of impacts to beneficial uses, but there is no recent data to confirm this.
Squaw Creek	Meadow Wetlands	
	Pesticides	A golf course was developed within the meadow, whose wetland values were damaged by the 1960 Olympics development activities. Pesticide impacts on Squaw Creek are monitored but no data is available on wetland impacts. Further data must be collected in order to appropriately confirm the level and extent of impacts to beneficial uses.
Stampede Res	ervoir	
	Chlordane	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the Monitoring List because the data are inadequate to determine if applicable water quality standards are exceeded.
		An inadequate amount number of water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is currently extremely low. Nonetheless, there is some evidence of impacts to beneficial uses. Therefore, this water body should be monitored more extensively before the next listing cycle.
	Pesticides (lindane)	Only one data point was available during 1989 listing. WQO for lindane is $2.5~\text{ug/kg}$ and original sample result was $2.6~\text{ug/kg}$.
		Periodic re-sampling through Toxic Substances Monitoring Program should be done to confirm lack of impacts to water quality standards.
Stella Lake		
	Nitrogen	Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.
Summers Cree	ek	
	Nitrogen, total dissolved solids	Study sponsored by North Mono RCD shows some violations of water quality objectives, but quality assurance/quality control information was not provided for the RWQCB listing effort. Monitoring is required in order to determine if beneficial uses are truly being impacted.

Water Body	Pollutant/Stressor	Rationale
Summit Creek		
	Petroleum products	Aquatic life is impacted by spills from a petroleum pipeline, but monitoring results were not available for review during the 2001-2002 list update. Long term monitoring is necessary to document recovery of instream uses.
Summitt Lake		
	Nitrogen	Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.
Susan River de Susanville	ownstream of	
	Mercury	Elevated Mercury was found in Toxic Substances Monitoring Program fish tissue sample. Additional monitoring is needed to confirm impairment.
	Nickel	
	PCBs	Elevated PCBs were found in Toxic Substances Monitoring Program fish tissue sample. Additional monitoring is needed to confirm impairment.
Susan River u	pstream of Susanville	
	Mercury	A Toxic Substances Monitoring Program sample exceeded Maximum Tissue Residue Level criterion. OEHHA was considering, but has not yet issued, a fishing advisory. Additional monitoring is needed to confirm likely impacts to beneficial uses.
	Nickel	
Swauger Creek	k	
	Total dissolved solids, nitrogen	For TDS: Study sponsored by North Mono RCD shows some possible violations of water quality objectives, but quality assurance/quality control information was not provided for the RWQCB listing effort. Monitoring is required in order to determine if beneficial uses are truly being impacted.
		For nitrogen: Water quality objective is not exceeded, but is probably set at a level too high to protect beneficial uses. In other words, existing beneficial uses are probably being deleteriously impacted. Additional monitoring is necessary to confirm this and to allow revision of the inappropriate objective.
Tahoe Keys Sa	ailing Lagoon	
	PCBs	Elevated Toxic Substances Monitoring Program fish tissue concentrations have been found here. Additional monitoring is needed to confirm impacts to beneficial uses.
	Toxaphene	Elevated Toxic Substances Monitoring Program fish tissue concentrations have been found here. Additional monitoring is needed to confirm impacts to beneficial uses.
Tahoe, Lake (was Lake Tahoe)	
	Boat fuel constituents (Petroleum Products)	Past studies show increases of petroleum hydrocarbons in areas with heavy motorboat use; results of ongoing study of PAH impacts on aquatic life is needed to determine whether beneficial uses are impacted.
	Iron	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the Monitoring List because the data are inadequate to determine if applicable water quality standards are exceeded.
		Iron is a micronutrient of concern in eutrophication of Lake Tahoe. Several tributaries exceed their iron objectives and are recommended for listing. Continued monitoring of iron in the Lake is needed to judge whether listing for iron is necessary.
		An inadequate amount number of water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is currently low. Nonetheless, there is some evidence of impacts to beneficial uses. Therefore, this water body should be monitored more extensively before the next listing cycle.
		Region 6 Monitoring List-12

Water Body	Pollutant/Stressor	Rationale
	Lead in sediment	A U.C. Davis sediment study shows increased concentration (presumably from atmospheric deposition) since European settlement began. More monitoring is needed to determine whether to list based on antidegradation considerations.
	Mercury in sediment	A U.C. Davis sediment study shows increased concentration (presumably from atmospheric deposition) since European settlement began. More monitoring is needed to determine whether to list based on antidegradation considerations.
	Pesticides (40 different compounds)	USGS study shows detectable pesticides (in violation of RWQCB narrative objective). However, the data quantity was considered insufficient to warrant 303(d) listing. Further monitoring is warranted.
Taylor Creek		
	Pesticides (8 different compounds)	USGS study showed detectable levels of pesticides (in violation of RWQCB narrative objective). However, data quantity was considered insufficient to warrant listing. Additional monitoring is necessary to confirm impacts to beneficial uses.
Tower Lake		
	Nitrogen	Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.
Truckee River		
	Chloride	Monitoring by Tahoe Truckee Sanitation Agency wastewater treatment plant indicates that road salt applications upstream of Truckee are contributing high levels salt to the River. Additional monitoring is needed to track sources and assess impacts on beneficial uses.
	TDS	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the Monitoring List because the data are inadequate to determine if applicable water quality standards are exceeded.
		Monitoring by Tahoe Truckee Sanitation Agency wastewater treatment plant indicates that road salt applications upstream of Truckee are contributing high levels salt to the River. Additional monitoring is needed to track sources and assess impacts on beneficial uses.
	upper (above and as Valley) (was River)	
off	Pesticides (7 different compounds), nitrogen	USGS study showed detectable levels of pesticides (in violation of RWQCB narrative objective). However, data quantity was considered insufficient to warrant listing. Monitoring is required to determine impacts to beneficial uses.
Trumball Lake		
	Nitrogen	Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.
Twin Lake, Lo Twin Lake)	wer (was Lower	
	Nutrients	Studies in 1970s-1980s indicated that the Upper and Lower Twin Lakes are mesotrophic. However, no recent data are available to confirm likely existing impacts to beneficial uses.
Twin Lake, Up Twin Lake)	pper (was Upper	
	Nutrients	Studies in 1970s-1980s indicated that the Upper and Lower Twin Lakes are mesotrophic. However, no recent data are available to confirm likely existing impacts to beneficial uses.

Water Body	Pollutant/Stressor	Rationale
Virginia Creek	3	
	Nitrogen, phosphorus, sediment, total dissolved solids	For total dissolved solids, phosphorus: Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.
		For sediment: Creek was identified as "threatened" or "intermediate" in an earlier Section 305(b) assessment. RWQCB staff observations strongly suggest that water quality standards are impacted, but there is no recent data.
		For nitrogen: The RWQCB water quality objective was not exceeded but is probably set at a level too high to protect beneficial uses. Existing beneficial uses are probably impacted, but additional monitoring is necessary to confirm this and to allow proper revision of the objective.
Virginia Lake	(Upper)	
	Nitrogen	Study sponsored by North Mono RCD showed some violations of objectives, but quality assurance/quality control information was not provided for the RWQCB review. Additional monitoring is necessary to confirm likely existing impacts to beneficial uses.
Watson Creek		
	Sediment	A 1996 Tahoe Regional Planning Agency report identified the needs for streambank and channel stabilization and improvement of stream morphology. There is no recent quantitative sediment data.
West Walker F	River	•
	Total dissolved solids, nitrogen	Study sponsored by North Mono RCD shows some violations of water quality objectives, but quality assurance/quality control information was not provided for the RWQCB listing effort. Monitoring is required in order to determine if beneficial uses are truly being impacted.

Reference List for Region 6

Staff Report

California Regional Water Quality Control Board. Lahontan Region. 2001. Staff Report on Recommended Changes to Lahontan Region's Section 303(d) List of Impaired Surface Water Bodies. November, 2001.

Watch List References

Allen, B.C. and J.E. Reuter, 2001. Changes in MTBE and BTEX Concentrations in Lake Tahoe, California-Nevada Following Implementation of a Ban on Selected 2-Stroke Marine Engines. University of California Davis Tahoe Research Group Annual Report. Available on the Internet: http://trg.ucdavis.edu/research/annualreport/contents/lake/article8.html

Associated Press., 1997. "Pollution at Donner Lake Linked to Motorboat Use." San Francisco Chronicle, October 7, 1997.

Brown and Root Environmental, 1996. Draft Final Site Inspection Report, Aurora Canyon Millsite, Bakersfield District [USBLM], California.

California Department of Water Resources, 2001. Correspondence from Jerry Boles to Tom Suk of Regional Board staff regarding mercury sampling at Eagle Lake, May 24, 2001.

California Office of Health Hazard Assessment, 2001. Public Health Goals for Chemicals in Drinking Water.

California Office of Health Hazard Assessment, 2001. Email correspondence between Margy Gassel and Judith Unsicker of Regional Board staff regarding mercury in Susan River TSMP samples.

California Regional Water Quality Control Board, Central Valley Region, 2000. A Compilation of Water Quality Goals.

California Regional Water Quality Control Board, Lahontan Region, 1995. Water Quality Control Plan for the Lahontan Region.

California Regional Water Quality Control Board, Lahontan Region, 1998. Cleanup and Abatement Order No. 6-98-19, Molycorp, Inc. Mountain Pass Mine and Mill, San Bernardino County.

California Regional Water Quality Control Board, Lahontan Region, 2000. Use Attainability Analysis for Nine "Naturally Impaired" Waters of the Lahontan Region.

California Regional Water Quality Control Board, Lahontan Region, 2001. Water quality monitoring data for the Mojave River.

California State Water Resources Control Board, 1999. 1998 California 303(d) List and Priority Schedule, Approved by USEPA 12-May-9.

California State Water Resources Control Board, 1999. 1998 California Water Quality Assessment Report. August 1999 Staff Report.

CH2M-Hill, 1996. Truckee River Loading Study, 205(j) Program. Final Report prepared for the Lahontan Regional Water Quality Control Board.

CH2M-Hill, 1997. Compilation of water quality data for the Truckee River collected by the Tahoe Truckee Sanitation Agency.

Colasurda, C., 2000. Mammoth's perilous magma- no short answers to earth-shaking questions at Long Valley Caldera. California Wild, Fall 2000. Available on the Internet: http://www.calacademy.org/calwild/fall2000/mammoth lake.html

Datta, S. and 4 other authors, 1998. Evidence for Atmospheric Transport and Deposition for Polychlorinated biphenyls to the Lake Tahoe Basin, California-Nevada. Available on the Internet: www.nal.usda.gov/ttic/tektran/data/000009/25/0000092538.html

DeLong, J., 1999. "Tahoe gas pollution plunging." Reno Gazette-Journal, November 23, 1999.

Heyvaert, A.C. and 3 other authors, 2001. Atmospheric Lead and Mercury Deposition at Lake Tahoe. University of California Davis Tahoe Research Group Annual Report, available on the Internet: http://trg.ucdavis.edu/research/annualreport/contents/lake/article11.html

Lico, M.B. and N. Pennington, 1999. Concentrations and Distributions of Manmade Organic Compounds in the Lake Tahoe Basin, Nevada and California, 1997-99. U.S. Geological Survey Water-Resources Investigations Report 99-4218. Markleeville Public Utility District, data from Discharger Self Monitoring Files (Lahontan Regional Board, South Lake Tahoe Office).

Maxwell, C.R., 2000. A Watershed Management Approach to Assessment of Water Quality and Development of Revised Water Quality Standards for the Ground Waters of the Mojave River Floodplain. Paper presented at National Water Quality Monitoring Council Conference, April 25-27, 2000, Austin TX.

McConnell, L.L. and 3 other authors, 1998. Wet Deposition of Current-Use Pesticides in the Sierra Nevada Mountain Range. Available on the Internet: www.nal.usda.gov/ttic/tektran/data/000008/48/0000084801.html

Murphy, D.M. and C.M. Knopp, editors, 2000. Lake Tahoe Watershed Assessment. Gen. Tech. Rep. PSW-GTR-176, USDA Forest Service, Pacific Southwest Research Station, Albany, CA, Vols. I and II.

Nevada Division of Environmental Protection, Bureau of Water Quality Planning. Grab/Surface Water Samples, Provisional Records, and watershed descriptions for Surface Water Monitoring Network. Available on the Internet: http://ndep.state.nv.us/bwqp/mon w5.htm>

Olde, D., 2000. "Questions about Illness Reporting at Donner Lake." Sierra Sun, September 28, 2000.

Palmdale Water District, 1998. 1998 Annual Water Quality Consumer Confidence Report.

Palmdale Water District, 2001. Water News, Spring 2001. Available on the Internet: http://www.palmdalewater.org/TOC/Newsletter/Archive/spring01.htm.

Silva, A., 1999. "Firm claims 2,620 spills." San Bernardino County Sun, February 6, 1999.

South Tahoe Public Utility District, data from Discharger Self Monitoring Files (Lahontan Regional Board, South Lake Tahoe Office).

Tahoe Regional Planning Agency, 1999. Annual Water Quality Report.

Tahoe-Truckee Sanitation Agency, data from Discharger Self Monitoring Files (Lahontan Regional Board, South Lake Tahoe Office).

Thompson, M. 2001. "Weather halts Walker River cleanup." Reno Gazette-Journal, January 19, 2001.

Topozone.com, http://www.topozone.com. [Searches of this webpage were used to determine latitudes and longitudes of most water bodies for use in Fact Sheets.]

U.S. Environmental Protection Agency, 1997. Establishing Site Specific Aquatic Life Criteria Equal to Natural Background. Memorandum dated November 5, 1997 from Tudor T. Davies, Director, Office of Science and Technology, USEPA Office of Water.

U.S. Geological Survey, 1999. U.S. Geological Survey Volcano Hazards Program, Long Valley Observatory: Carbon Dioxide and Helium Discharge from Mammoth Mountain. Available on the Internet: http://lvo.wr.usgs.gov/CO2.html

U.S. Geological Survey, Water Quality Samples for California. UGS 10356500 Susan R. @ Susanville CA (NWIS database).

Vance, L. 2000. Report on the Upper Walker River Water Quality Study, 1999. Prepared for Mono County Resource Conservation District.

Vance, L., 2001. Upper Walker River study data collected in 2000.

White, P. 2001. "Anglers "invade" Heenan Lake on fishing opener." Reno Gazette-Journal, September 5, 2001.

White, P., 2001. "Oil spill on Walker River will hurt fish, aquatic life." Reno Gazette-Journal, January 31, 2001.

References (Listings, Delistings and Changes)

Bourelle, A. 1999. Regulations may force cattle out. Tahoe Daily Tribune, November 23, 1999.

Brown and Root Environmental, 1996. *Draft Final Site Inspection Report, Aurora Canyon Millsite, Bakersfield District, California*. Contract No. 1422-N651-C4-3049, January 19, 1996.

California Department of Fish and Game, 1995. Endangered Species Act Prelisting Proposal.

California Department of Fish and Game, 1997. A Fisheries Management Plan for Crowley Lake and Tributaries, Mono County, California.

California Department of Water Resources, 1960. Water Quality Investigation, Surprise Valley.

California Department of Water Resources, 1963. Northeastern Counties Ground Water Investigation, Volume I, Bulletin No. 98.

California Department of Water Resources, 1970. Arsenic in Wells in Northeastern California. Memorandum from Bruce Wormald dated December 11, 1970.

California Department of Water Resources, 1993. Dams Within the Jurisdiction of the State of California. Bulletin 17. Available on the Internet: http://elib.cs.berkeley.edu/kopec;/b17/html/home.html.

California Office of Environmental Health Hazard Assessment, 1999. Fish consumption advisories statewide and General Information. Available on the Internet: http://www.oehha.ca.gov/general/99fish.html.

California Office of Health Hazard Assessment, 2001. Public Health Goals for Chemicals in Drinking Water: Uranium, 2001.

California Office of Health Hazard Assessment, 2001. Public Health Goal for Tetrachloroethylene in Drinking Water, August 2001. Available on the Internet at: http://www.oehha.ca.gov/water/phg/pdf/PDEAug2001.pdf

California Regional Water Quality Control Board, 1998. Letter from Ranjit S. Gill to Ralf Koehne, U.S. Forest Service, Plumas National Forest. Request for Water Quality Information on "Top Spring" for Use in Development of Total Maximum Daily Loads.

California Regional Water Quality Control Board, Central Valley Region, 2000. A Compilation of Water Quality Goals, 2000.

California Regional Water Quality Control Board, Lahontan Region 2001. Internal Memo from John Steude and Alan Miller to Judith Unsicker, Summary of water quality analysis for potential CWA listing of the lower [sic] of the West Fork of the Carson River, Alpine County.

California Regional Water Quality Control Board, Lahontan Region and U.S. Forest Service, Lake Tahoe Basin Management Unit, 2000-2001. Unpublished fecal coliform data for the Upper Truckee River.

California Regional Water Quality Control Board, Lahontan Region and U.S. Forest Service, Lake Tahoe Basin Management Unit, 2000-2001. Unpublished fecal coliform data for Tallac Creek

California Regional Water Quality Control Board, Lahontan Region, 1983. West Fork Carson River and Indian Creek Watersheds Water Quality Control Plan Update: 1983.

California Regional Water Quality Control Board, Lahontan Region, 1994. Water Body Fact Sheet for "Eagle Lake (2)."

California Regional Water Quality Control Board, Lahontan Region, 1995. Draft Functional Equivalent Document and Staff Report for Proposed Amendments to the Water Quality Control Plan for the Lahontan Region: Appendix C. Use Attainability Analysis for Owens Lake, Inyo County, California. September 1995.

California Regional Water Quality Control Board, Lahontan Region, 1995. Water Quality Control Plan for the Lahontan Region.

California Regional Water Quality Control Board, Lahontan Region, 2000. *Use Attainability Analysis for Nine "Naturally Impaired" Waters of the Lahontan Region*, April 2000.

California Regional Water Quality Control Board, Lahontan Region, 2000. Staff Report/Draft Environmental Document for Proposed Amendments to the Water Quality Control Plan for the Lahontan Region (Basin Plan), State Clearinghouse Number 98092052, April 2000.

California Regional Water Quality Control Board, Lahontan Region, 2000. Analysis of the Beneficial Uses REC-1, REC-2, SAL, and WILD with Respect to Searles Dry Lake, IMC Chemicals, Inc., Trona, San Bernardino County, and Response to IMCC Comments made during the July 2000 Regional Board meeting.

California Regional Water Quality Control Board, Lahontan Region, 2000. Amended Cleanup and Abatement Order No. 6-00-64A1, WDID Nos.: 6B368020001, 6B368905004, and 6B368905005, Requiring IMC Chemicals and the U.S. Department of the Interior, Bureau of Land Management, To Clean Up and Abate the Effects of Waste Discharges to Searles Lake From the Trona, Argus, and Westend Facilities, San Bernardino County.

California Regional Water Quality Control Board, Lahontan Region, 2000. Amended Cease and Desist Order No. 6-00-61A1, WDID: 6B368020001/6B368905004-Consideration of an Amended Cease and Desist Order-IMC Chemicals, Inc. and the U.S. Department of Interior, Bureau of Land Management, Trona and Argus Operations, Searles Lake.

California Regional Water Quality Control Board, Lahontan Region, 2001. Staff Report on Recommended Changes to Lahontan Region's Section 303(d) List of Impaired Surface Water Bodies.

California Regional Water Quality Control Board, Lahontan Region, 2001. Email from Jason Churchill to Judith Unsicker, Monitor Creek 303(d) Listing, October12, 2001.

California Regional Water Quality Control Board, Lahontan Region, and U.S. Forest Service, Lake Tahoe Basin Management Unit, 2000-2001. Unpublished fecal coliform data for Big Meadow Creek.

California Regional Water Quality Control Board, Lahontan Region, 2000-2001. Unpublished fecal coliform data for Trout Creek

California Regional Water Quality Control Board, Lahontan Region. Mojave River and D Street data.

California State Water Resources Control Board, 1988. Resolution 88-63, Sources of Drinking Water Policy.

California State Water Resources Control Board, 1991. California Inland Surface Waters Plan: Water Quality Control Plan for Inland Surface Waters of California, 91-12 WQ, April 1991.

California State Water Resources Control Board, 1994. Decision 1631, "Decision and Order Amending Water Right Licenses to Establish Fishery Protection Flows in Streams."

California State Water Resources Control Board, 1995. *Toxic Substances Monitoring Program (TSMP), Freshwater Bioaccumulation Monitoring Program, Data Base Description.* Revised September 1995.

California State Water Resources Control Board, 1998. Order WR 98-05 In the Matter of Stream and Waterfowl Habitat Restoration Plans and Grant Lake Operations and Management Plan Submitted by the Los Angeles Department of Water and Power Pursuant to the Requirements of Water Right Decision 1631 (Water Rights Licenses 10191 and 10192, Applications 8042 and 8043).

California State Water Resources Control Board, 2001. Toxic Substances Monitoring Program database printout for Walker River watershed, March 2001.

California State Water Resources Control Board, Toxic Substances Monitoring Program database.

CEPIS, no date. Ground-Water Pollution, In: Seminar Publication: Protection of public water supplies from ground-water contamination, Environmental Protection Agency. Available on the Internet: http://www.cepis.ops-oms.org/muwww/fulltext/repind46/ground/ground.html>

Cone, M. 1998. "L.A. Strikes Deal with Owens Valley to End Dust Woes." Los Angeles Times,

Datta, S. and 4 other authors, 1998. Evidence for Atmospheric Transport and Deposition for Polychlorinated Biphenyls to the Lake Tahoe Basin, California-Nevada. Available on the Internet: http://www.nal.usda.gov/ttic/tektran/data/000009/25/0000092538.html

Erlich, Robert, Lahontan Regional Board staff, personal communication, October 2001.

February 23, 2001, from Lauri Kemper, Chief, Lake Tahoe Watershed Unit, to Maribeth Gustafson, Forest Supervisor, Lake Tahoe Basin Management Unit, "Summary of Fecal Coliform Statistics on Meiss Grazing Allotment—1999 and 2000 Seasons, and Recommendations for 2001 Season."

Great Basin Unified Air Pollution Control District, 1997. *Owens Valley PM*₁₀ *Planning Area, Demonstration of Attainment, State Implementation Plan* (Executive Summary).

Hinrich, R.L., 1986. Summaries of telephone calls regarding samples at Laufman Ranger Station. (California Dept. of Health Services, Office of Drinking Water, Redding).

Honeywell, P.D., 2001. Email from Paul Honeywell of U.S. Geological Survey to Kim Gorman of Regional Board staff, dated 3/13/01, "Re: Bridgeport Data." Email explains error codes

Honeywell, P.D., 2001. Email from Paul Honeywell, U.S. Geological Survey to Kim Gorman of Regional Board staff, dated 3/13/01 "Re: Bridgeport Data." Email explains error codes

Jones & Stokes Associates, Inc., 1993. Draft Environmental Impact Report.

Koehne, R., 1998. Memo to Ranjit S. Gill and Peter Fischer, Top Springs Water Reports. U.S.D.A. Forest Service, Plumas National Forest, March 31, 1998.

Letter to Joyce Coakley, Lassen National forest from Richard L. Elliott, California Department of Fish and Game, dated March 30, 1995.

Liu, M.S., J.E. Reuter, and C.R. Goldman, 2001. *Seasonal Significance of Atmospheric Deposition of Phosphorus and the Sources of Deposition for Lake Tahoe, CA-NV*. Abstract of paper presented at meeting of American Society of Limnology and Oceanography, Albuquerque NM, February 2001.

Los Angeles Department of Water and Power, 2001. The Los Angeles Department of Water and Power Water Quality Report for 2000.

Los Angeles Department of Water and Power, unpublished water quality data.

MacDonald, C.D. and A. Lutz, 2000. Staff Report on Recommendation to Remove Pine Creek from the 303(d) List, California Regional Water Quality Control Board, Lahontan Region, April 14, 2000.

Maxwell, C.R. 2000. A Watershed Management Approach to Assessment of Water Quality and Development of Revised Water Quality Standards for the Ground Waters of the Mojave River Floodplain. Paper presented at National Water Quality Monitoring Council Conference, April 25-27, 2000, Austin TX.

Menon, A.S., 2001. Shellfish Safety: Bacterial Indicators on [sic] Shellfish Water Quality. Canadian Shellfish Quality Resource. Available on the Internet: http://www.shellfishquality.ca/indicators.htm.

Mono Basin Water Rights of the City of Los Angeles. Prepared for California State Water Resources Control Board. May, 1993.

Mono Lake and to Protect Public Trust Resources At Mono Lake and In the Mono Lake Basin,"

Murphy, D.M., and C.M. Knopp, editors, 2000. *Lake Tahoe Watershed Assessment*. Gen. Tech. Rep. PSW-GTR-176, USDA Forest Service, Pacific Southwest Research Station, Albany, CA, Vols. I and II.

National Academy of Sciences, 1987. The Mono Basin Ecosystem: Effects of Changing Lake Level.

Nevada Division of Environmental Protection, Bureau of Water Quality Planning, 1998. Nevada's 1998 303(d) List. Available on the Internet: http://ndep.state.nv.us/bwqp/riv303d98.pdf.

Nevada Division of Environmental Protection, Bureau of Water Quality Planning. State of Nevada Surface Water Monitoring Network, Walker River Basin, 1997-98 data for East Fork at Stateline. Available on the Internet: http://ndep.state.nv.us/bwgp/mon_w5.htm.

Nevada Division of Environmental Protection, Bureau of Water Quality Planning, 2001. State of Nevada Surface Water Monitoring Network, Carson River Basin. Available on the Internet: http://ndep.state.nv.us/bwqp/C9.html.

Nevada Division of Water Planning, no date. *The Flood of 1997, Final Report.* Available on the Internet: http://www.state.nv.us/cnr/ndwp/flood-97/floodana.htm

North Mono County Resource Conservation District, 2000. Report on the Upper Walker River Water Quality Study, 1999.

Patterson, D.W. and S.L. Jacobson, 1984. 1983 Surprise Valley Ground Water Recharge Field Study Report. U.S. Soil Conservation Service, Red Bluff, CA.

Peter J. Fischer to Judith Unsicker, "top springs," February 22, 2000.

Rowe, T.G., 1998. Loads and Yields of Sediment and Nutrients for Selected Watersheds in the Lake Tahoe Basin, California and Nevada. U.S. Geological Survey, paper presented at Water Quality Monitoring Council 1998 Conference. Available on the Internet: http://204.87.241.11/98proceedings/Papers/50-ROWE.html.

Rowe, T.G., 2001. Loads and Yields of Suspended Sediment for Selected Watersheds in the Lake Tahoe Basin, California and Nevada. *Proceedings of the Seventh Federal Interagency Sedimentation Conference*, March 25 to 29, 2001, Reno Nevada.

Rowe, T.G., and K.K. Allander, 2000. *Surface- and Ground-Water Characteristics in the Upper Truckee River and Trout Creek Watersheds, South Lake Tahoe, California and Nevada, July-December 1996.* U.S. Geological Survey Water-Resources Investigations Report 00-4001. Available on the Internet: http://water.usgs.gov/pubs/wri/wri004001/

South Tahoe Public Utility District, 2000-2001. Monitoring Data for Heavenly Valley Creek (in Regional Board files).

South Tahoe Public Utility District. Unpublished water quality data.

Tahoe Regional Planning Agency, 1996. Draft 1996 Evaluation Report: Environmental Threshold Carrying Capacities and the Regional Plan Package for the Lake Tahoe Region, December 1996.

Tahoe Regional Planning Agency, 1998. Environmental Improvement Program for the Lake Tahoe Region. Draft for Initial Adoption

Tahoe Regional Planning Agency, 1999. Annual Water Quality Report.

- U.S. Department of the Interior, Fish and Wildlife Service, 1995. 5 CFR Part 17: Endangered and Threatened Wildlife and Plants,: 90-Day Finding for a Petition to List the Eagle Lake Rainbow Trout and Designate Critical Habitat.
- U.S. Environmental Protection Agency, 1997. Establishing Site Specific Aquatic Life Criteria Equal to Natural Background. Memorandum dated November 5, 1997 from Tudor T. Davies, Director, Office of Science and Technology, USEPA Office of Water.
- U.S. Environmental Protection Agency, 2001. EPA to Implement 10ppb [sic] Standard for Arsenic in Drinking Water. USEPA Office of Water, EPA 815-F-01-010, October 2001. Available on the Internet: http://www.epa.gov/safewater/ars/ars-oct-factsheet.html
- U.S. Forest Service, Lake Tahoe Basin Management Unit, 1998. *Heavenly Ski Resort 1997 Environmental Monitoring Report.*
- U.S. Forest Service, Lake Tahoe Basin Management Unit, 1999. *Heavenly Ski Resort 1998 Environmental Monitoring Report*.
- U.S. Forest Service, Lake Tahoe Basin Management Unit, 2001. Wildlife/Range Management. Available on the Internet: www.r5.fs.fed.us/ltbmu/management/wildlife/range

- U.S. Geological Survey, 1976. *Sources of Arsenic in Streams Tributary to Lake Crowley, California*, Water-Resources Investigations 76-36.
- U.S. Geological Survey, 2001. Unpublished water quality data provided via FTP.
- U.S. Geological Survey, 2001. Unpublished water quality data.
- U.S. Geological Survey, 2001. Water Quality Samples for California, USGS 10336610 Upper Truckee River at South Lake Tahoe Calif. NWIS Database; http://www.usgs.gov/ca/nwis
- USDA Forest Service, Eagle Lake Ranger District, Lassen National Forest, 1995. Decision Nogtice and Finding of No Significant Impact for: Pine Creek Riparian and Fish Passage Improvement Project, June 9, 1995.
- Vinyard, G.L, and R.W. Watts, 1992. *Wasteload Allocation Study, Monitor Creek, East Fork Carson River Hydrologic Unit.* Aquatic Ecology Laboratory, University of Nevada, Reno.
- Zonge, L. and S. Swanson, 1996. Changes in Streambanks in the Sierra Nevada Mountains: Perspectives from a Dry and a Wet Year. *Restoration Ecology* 4(2): 192-199.

